IEI Technology Corp.

MODEL:

VITO-350

Intel© Celeron® M Mobile Digital Video Server with 16-Channel Video Inputs, 4-Channel Audio Inputs, Wireless LAN, CF, PCMCIA, TV-out, S-Video and DIO

User Manual

Rev. 2.00 – 31 March, 2009

RoHS Lead Free

Revision

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Chapter

1

Introduction

1.1 VITO-350 Introduction

Figure 1-1: VITO-350 Digital Video Server

The fanless and durable VITO-350 digital video server with anti-vibration and anti-shock protection is ideal for integration into digital video surveillance applications that operate in extreme environmental conditions. The VITO-350 supports up to 16 composite video inputs for NTSC/PAL/SECAM and four audio inputs. One TV-out port, one S-Video port and one VGA port enable the VITO-350 to display high quality video through diverse display devices.

Two isolated RS-232/422/485 serial ports, 4-channel isolated digital input and output connectors and four USB connectors make the VITO-350 to communicate effectively with a host of external appliances. Two Gigabit Ethernet (GbE) controllers and wireless LAN module provide uninterrupted connectivity for network communication.

The VITO-350 digital video server also supports one CF card and one PCIMCIA card. A 1 GB CF card preinstalled with a Windows® XP Embedded operating system is an OEM option to enhance the flexibility of the VITO-350.

1.2 VITO-350 Hardware Overview

1.2.1 Motherboard Overview

The VITO-350 digital video server has an IEI motherboard integrated with an IEM-8522 CPU module. The IEM-9452 is a 1.06 GHz Intel® Celeron® M 423 CPU module with a single 200-pin SO-DIMM socket that preinstall a 1.0 GB DDR2 SDRAM SO-DIMM.

1.2.2 VITO-350 Overview Photo

The VITO-350 has a wide variety of external interface connectors. **Figure 1-2** is a labeled photo of the peripheral interface connectors on the front of the VITO-350.

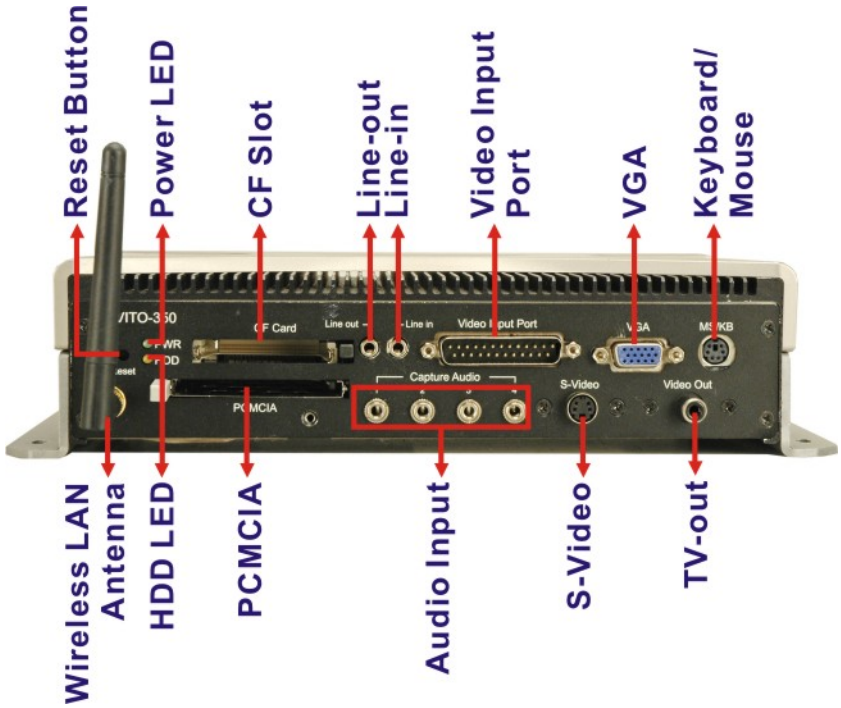


Figure 1-2: VITO-350 Overview [Front View]

Figure 1-3 shows the standard external peripheral interface connectors on the back of the VITO-350.

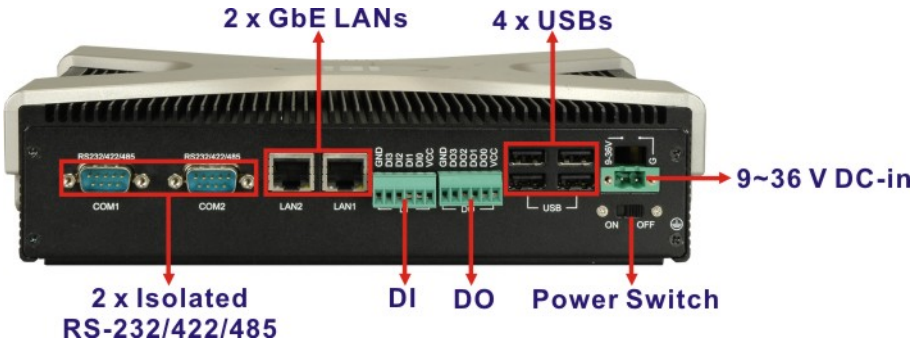


Figure 1-3: VITO-350 Overview [Rear View]

1.2.3 VITO-350 External Interfaces, Switches and LEDs

External interfaces, switches and LEDs are accessed through the VITO-350 controller chassis include:

- 1 x CF Type I/II slot
- 1 x PCMCIA slot
- 1 x Audio line-out connector
- 1 x Audio line-in connector
- 4 x Audio input connectors
- 1 x Video input port for up to 16 BNC composite video connections
- 1 x VGA connector
- 1 x PS/2 keyboard and mouse connector
- 1 x Wireless antenna connector
- 2 x Isolated RS-232/422/485 serial communications ports
- 2 x RJ-45 connectors for GbE connections
- 4 x USB 2.0 ports
- 1 x S-Video connector
- 1 x TV-out connector
- 1 x 9~36V DC-IN terminal block
- 4-channel isolated DI interface
- 4-channel isolated DO interface

The VITO-350 also contains the following switch and button:

- 1 x Power switch
- 1 x Reset button

Status indicator LEDs on the front panel of the VITO-350 include:

- HDD LED
- Power LED

1.2.4 Technical Specifications

VITO-350 controller technical specifications are listed in **Table 1-1**. See **Chapter 2** for details.

Specification	VITO-350
CONTROLLER SPECIFICATIONS	
Controller CPU	1.06 GHz Intel® Celeron® M 423 CPU with 1 M L2 cache and a 533 MHz FSB
Chipset	Intel® 945GSE + ICH7
Memory	One 1 GB 667 MHz DDR2 SDRAM SO-DIMM preinstalled (system max. 2 GB)
OS Support	Windows® XP Embedded or XP
Storage	One CF card slot One 2.5” or 1.8” hard disk drive bay
POWER SPECIFICATIONS	
Power	AT power
Power Input	9 V DC ~ 36 V DC (e.q +24 V at 1.5 A), Min.: 36 W
ENVIRONMENTAL SPECIFICATIONS	
Temperature	0ºC – 60ºC
Humidity (operating)	5%~95% non-condensing

Vibration	5 Hz ~ 17 Hz, 0.1” double amplitude displacement; 17 Hz ~ 640 Hz, 1.5 G acceleration peak to peak.		
Shock	10 G acceleration peak to peak (11ms)		
CHASSIS CONSTRUCTION AND COLOR			
Chassis Material	Aluminum extrusion / Heavy-duty steel chassis		
Color	Black and silver		
Mounting Support	Wall mount, DIN rail mount		
Dimensions (WxDxH)	276.00 mm x 150.25 mm x 66.20 mm		
VIDEO CAPTURE			
Video Input	16 composite video channels, NTSC/PAL/SECAM auto sensing		
Video Output	One TV-out One S-Video		
Capture Resolution	**NTSC:** 720 x 480 720 x 240 640 x 480 640 x 240 320 x 240 160 x 120	**PAL/SECAM:** 720 x 576 720 x 480 720 x 288 720 x 240 704 x 576 704 x 288	 640 x 480 640 x 240 352 x 288 320 x 240 176 x 144 160 x 120
Total Frame Rate	NTSC: total 120 fps at D1 for 16 channels PAL/SECAM: 100 fps at D1 for 16 channels		
AUDIO CAPTURE			
Audio Input	Four analog audio input ports		
Sampling Rate	8-bit, 16-bit and 24-bit (hardware specs.)		
Quantization	8-bit, 16-bit and 24-bit (hardware specs.)		

EXTERNAL INTERFACES	
Audio	One line-out connector One line-in connector
VGA	One female DB-15 connector
USB	Four USB 2.0 ports
Keyboard/Mouse	One keyboard/mouse connector
Ethernet	Two RJ-45 GbE connectors
Serial ports	Two male DB-9 isolated RS-232/422/485 serial ports
Expansion slot	One PC card slot supports PCMCIA One CF slot
CHANNELS	
Digital Input	4-channel isolated DI
Digital Output	4-channel isolated DO

Table 1-1: Technical Specifications

Chapter

2

Controller Overview

2.1 VITO-350 Dimensions

The dimensions of the VITO-350 with wall mount bracket are listed below:

- **Width**: 275.00 mm
- **Depth**: 150.25 mm
- **Height**: 65.41 mm

The dimensions for the VITO-350 are shown in **Figure 2-1**.

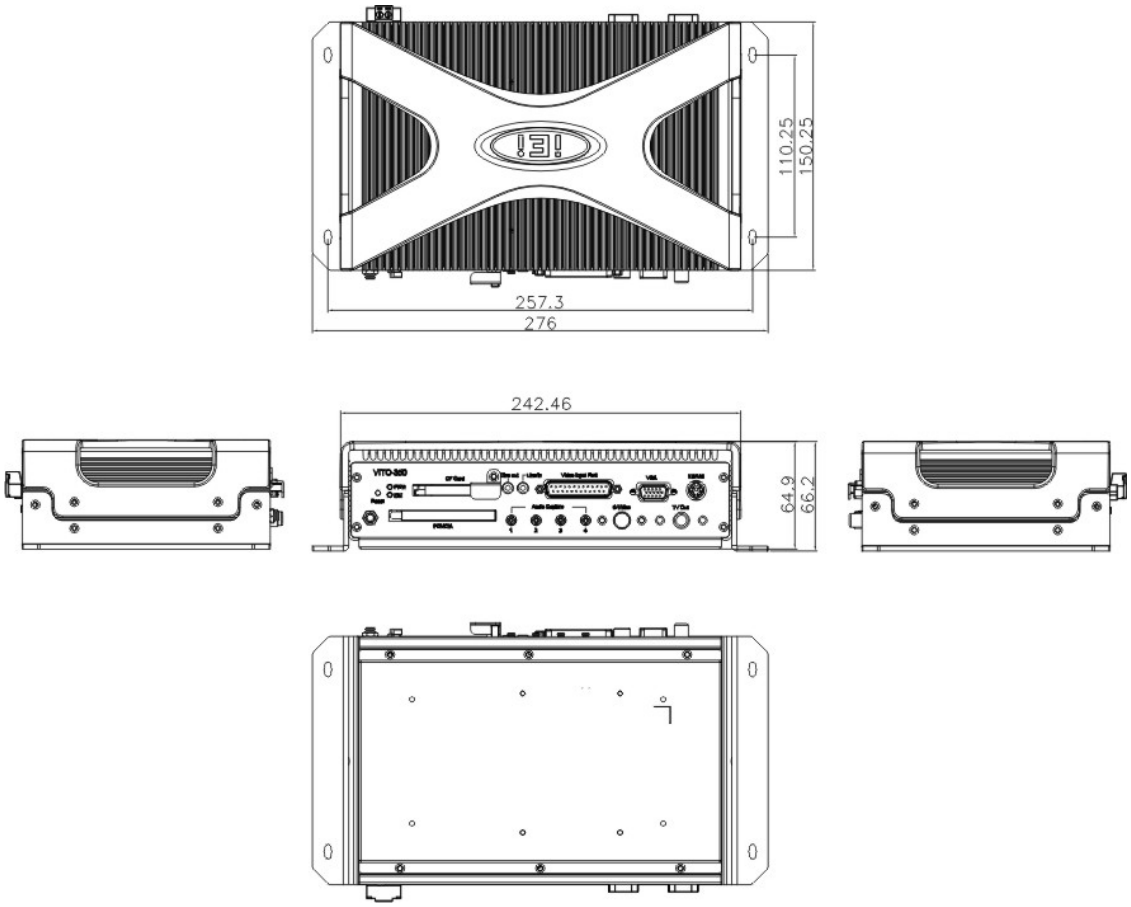


Figure 2-1: VITO-350 Controller Dimensions

2.2 External Overview

2.2.1 Front Panel Connectors and Indicators

The connectors, indicators and switches listed in this section are shown in **Figure 2-2** below.

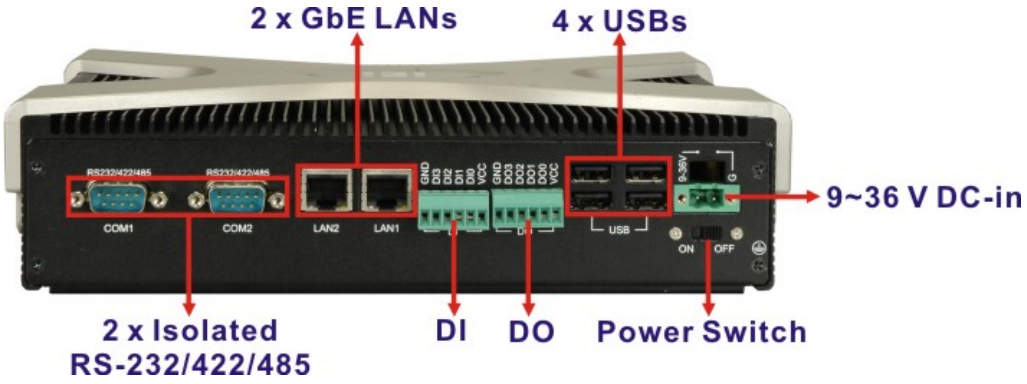


Figure 2-2: VITO-350 Front Panel Connectors

The front panel I/O connectors are listed below:

- 2 x Isolated RS-232/422/485 serial communications ports
- 2 x RJ-45 connectors for GbE connections
- 4 x USB 2.0 ports
- 1 x 9~36V DC-IN terminal block
- 1 x Power switch
- 4-channel isolated DI interface
- 4-channel isolated DO interface

2.2.2 Rear Panel Overview

The VITO-350 rear panel comprises the following components:

- 1 x CF Type I/II slot
- 1 x PCMCIA slot
- 1 x Audio line-out connector
- 1 x Audio line-in connector

- 4 x Audio input connectors
- 1 x S-Video connector
- 1 x TV-out connector
- 1 x Video input port for up to 16 BNC composite video connections
- 1 x VGA connector
- 1 x PS/2 keyboard and mouse connector
- 1 x Reset button
- 1 x Wireless antenna connector
- 1 x HDD activity LED
- 1 x Power LED

An overview of the rear panel is shown in **Figure 2-3** below.

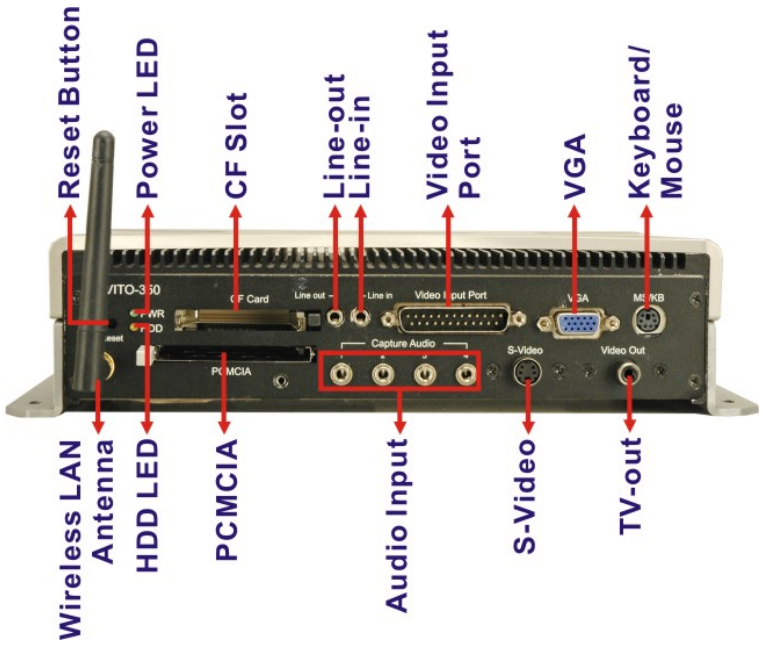


Figure 2-3: VITO-350 Rear Panel

2.3 Internal Overview

The VITO-350 internal components are listed below:

- 1 x IEI motherboard (preinstalled)

- 1 x IEM-9452 CPU module (preinstalled on the motherboard)
- 1 x 1.0 GB DDR2 SO-DIMM (preinstalled on the CPU module)
- 1 x IEEE 802.11 b/g Mini PCI Wireless Module (preinstalled)

All controller components are accessed by removing the motherboard. Please refer to **Section 5.4.1.1** for the motherboard removal instruction.

2.4 VITO-350 Controller Motherboard

The VITO-350 has a motherboard installed in the controller. The following sections describe the relevant connectors and jumpers on the motherboard.

2.4.1.1 Onboard Connectors

Table 2-1 lists the connectors on the motherboards. Detailed descriptions of these connectors can be found in **Section 2.4.3**.

Connector	Type	Label
Audio input connector	10-pin header	P1
CompactFlash® socket	50-pin socket	CF1
Mini PCI socket	124-pin socket	CN5
PCMCIA socket	68-pin socket	PCMCIA1
Power switch connector	3-pin header	POWER_SW1
SATA power connector	4-pin wafer	CN10
TV-out connector	6-pin header	CN6

Table 2-1: Peripheral Interface Connectors

2.4.1.2 External Interface Connectors

Table 2-2 lists the external interface connectors on the motherboard.

	Connector	Type	Label

Front Panel	Audio line-out connector	Audio jack	CN7
	Audio line-in connector	Audio jack	CN8
	Keyboard/mouse connector	PS/2	KB_MS1
	Reset button	Button	CN9
	Video input connector	DB-25 connector	CAPTURE1
	VGA port connector	DB-15	VGA1
Rear Panel	9~36 V DC terminal block	2-pin connector	POWER_CONN1
	Ethernet connectors (1)	Dual RJ-45 ports	J1
	Ethernet connectors (2)	Dual RJ-45 ports	J2
	DIO interface (1)	6-pin Phoenix	PHOENIX_CONN1
	DIO interface (2)	6-pin Phoenix	PHOENIX_CONN2
	RS-232/422/485 serial port (1)	DB-9	COM1
	RS-232/422/485 serial port (2)	DB-9	COM2
	USB ports (1)	Dual USB ports	CN1
	USB ports (2)	Dual USB ports	CN2

Table 2-2: Peripheral Interface Connectors

2.4.2 On-board Jumpers

Table 2-3 lists all the onboard jumpers of the motherboard.

Description	Label	Type
Clear CMOS	JP4	3-pin header
CF card master/slave	JP5	2-pin header
COM 1 and COM2 function select	SW1	DIP switch
DO power select	JP2	2-pin header

Table 2-3: Onboard Jumpers

2.4.3 On-board Connector Pinouts

The following sections describe the motherboard pinouts and the controller components to which they have been connected.

2.4.4 Audio Connector

CN Label: **P1**

CN Type: 10-pin header

CN Location: See **Figure 2-4**

CN Pinouts: See **Table 2-4**

The 10-pin audio connector is connected to four external audio jacks on the rear panel of the VITO-350 controller. The four external audio jacks support four analog audio inputs for four video inputs.

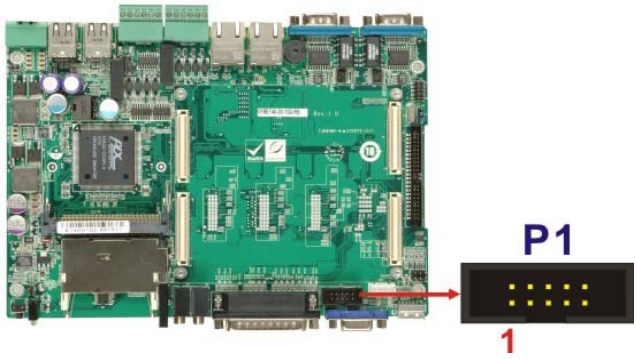


Figure 2-4: Audio Connector Pinouts

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	SIN1_A	6	SIN3_A
2	SIN1_A	7	SIN4_A
3	SIN2_A	8	SIN4_A
4	SIN2_A	9	GND
5	SIN3_A	10	N/C

Table 2-4: Audio Connector Pinouts (10-pin)

2.4.4.1 Power Switch Connector

CN Label: **POWER_SW1**

CN Type: 2-pin wafer (1x2)

CN Location: See **Figure 2-5**

CN Pinouts: See **Table 2-5**

The power switch connector (POWER_SW1) on the motherboard is connected directly to the power switch on the front of the VITO-350.

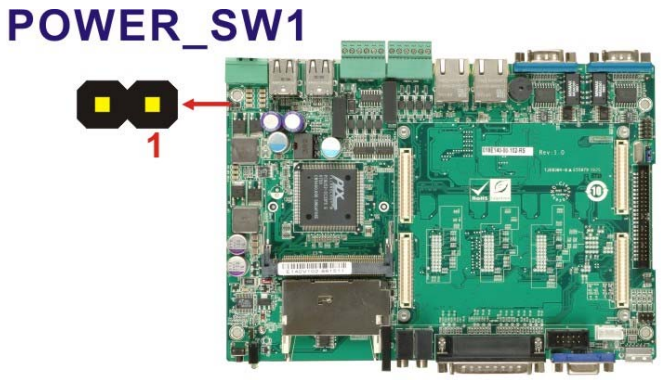


Figure 2-5: Power Switch Connector Locations

PIN NO.	DESCRIPTION
1	PWRBTN#
2	GND

Table 2-5: Power Switch Connector Pinouts

2.4.5 TV Out Connector

CN Label: **CN6**

CN Type: 6-pin header (2x3)

CN Location: See **Figure 2-6**

CN Pinouts: See **Table 2-6**

The 2x3 pin TV out connector connects to a TV output by using an S-Video or RCA connector. The TV out connector makes displaying media data on a television easier.

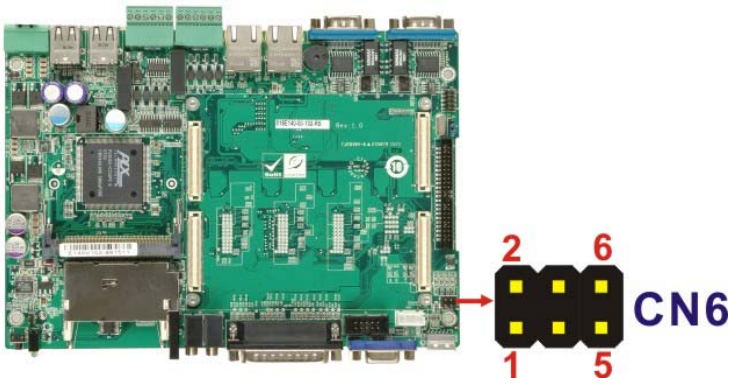


Figure 2-6: TV-out Connector Pinout Locations

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	TVSYNC	2	TVY
3	GND	4	TVC
5	GND	6	TVCVBS

Table 2-6: TV-out Port Connector Pinouts

2.5 VITO-350 External Interface Connectors

2.5.1 External Interface Connector Overview

Figure 2-7 shows the external interface connectors on the front and rear panel of the VITO-350 controller. These external interface connectors listed in **Table 2-7** connect to external peripheral devices.

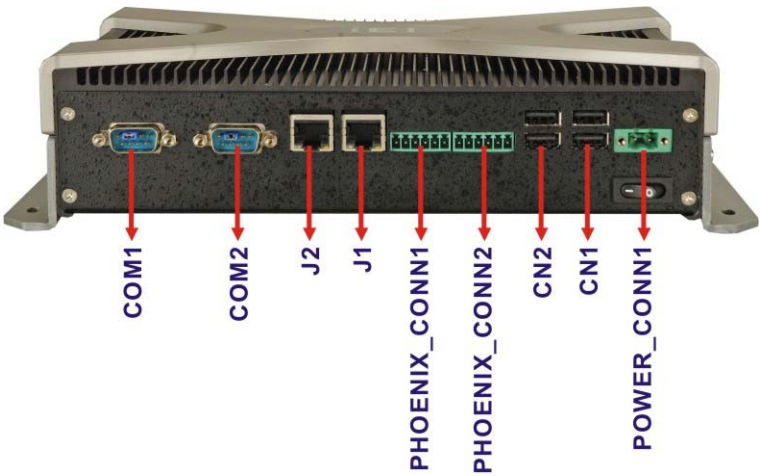
	Connector	Type	Label
Front Panel	Audio line-out connector	Audio jack	CN7
	Audio line-in connector	Audio jack	CN8
	Keyboard/mouse connector	PS/2	KB_MS1
	Reset button	Button	CN9
	Video input connector	DB-25 connector	CAPTURE1

	VGA port connector	DB-15	VGA1
Rear Panel	9~36V DC terminal block	2-pin connector	POWER_CONN1
	Ethernet connectors (1)	Dual RJ-45 ports	J1
	Ethernet connectors (2)	Dual RJ-45 ports	J2
	DIO interface (1)	6-pin Phoenix	PHOENIX_CONN1
	DIO interface (2)	6-pin Phoenix	PHOENIX_CONN2
	RS-232/422/485 serial port (1)	DB-9	COM1
	RS-232/422/485 serial port (2)	DB-9	COM2
	USB ports (1)	Dual USB ports	CN1
	USB ports (2)	Dual USB ports	CN2

Table 2-7: External Interface Connectors

Other external LEDs locate on the front panel include:

- HDD LED
- Power LED



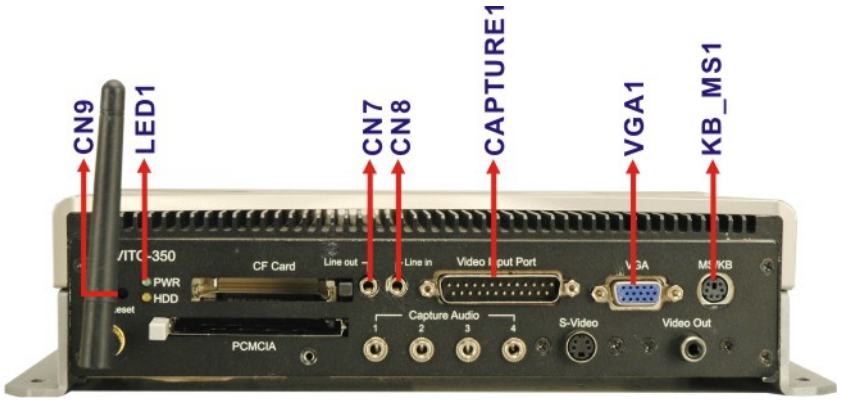


Figure 2-7: VITO-350 Standard External Interface Connectors

2.5.2 9V~36V DC Terminal Block

CN Label: **POWER_CONN1** (motherboard label)

CN Type: Terminal block

CN Location: See **Figure 2-7**

CN Pinouts: See **Table 2-8** and **Figure 2-8**

The power terminal block connects to 9V~36V DC power source.

PIN	DESCRIPTION
1	9~36V DC Power in
2	GND

Table 2-8: 9~36V Power Connector Pinouts

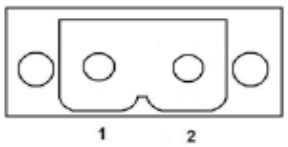


Figure 2-8: Power Terminal Block

2.5.3 DIO Connectors

CN Label: **PHOENIX_CONN1** and **PHOENIX_CONN2** (motherboard label)

CN Type: 6-pin Phoenix connector

CN Location: See **Figure 2-7**

CN Pinouts: See **Table 2-9** and **Figure 2-9**

The VITO-350 controller provides four-channel digital input and four-channel digital output through two 6-pin Phoenix connectors (**Table 2-9**). The digital input/output connector is managed through a Super I/O chip. The DIO connector pins are user programmable.

PIN	PHOENIX_CONN1	PHOENIX_CONN2
1	DIO_IN_VCC	DIO_OUT_VCC
2	DIO_IN_0	DIO_OUT_0
3	DIO_IN_1	DIO_OUT_1
4	DIO_IN_2	DIO_OUT_2
5	DIO_IN_3	DIO_OUT_3
6	DIO_IN_GND	DIO_OUT_GND

Table 2-9: DIO Interface Pinouts

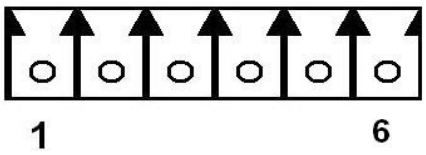
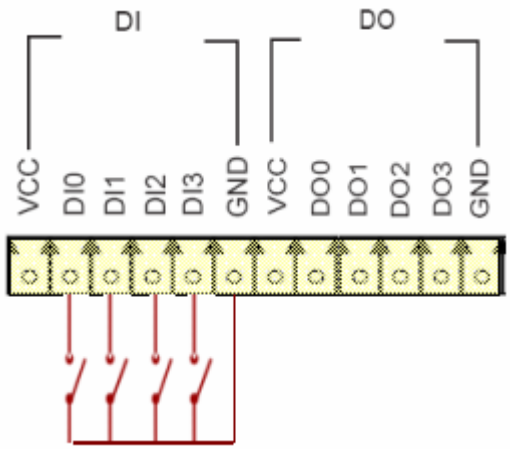
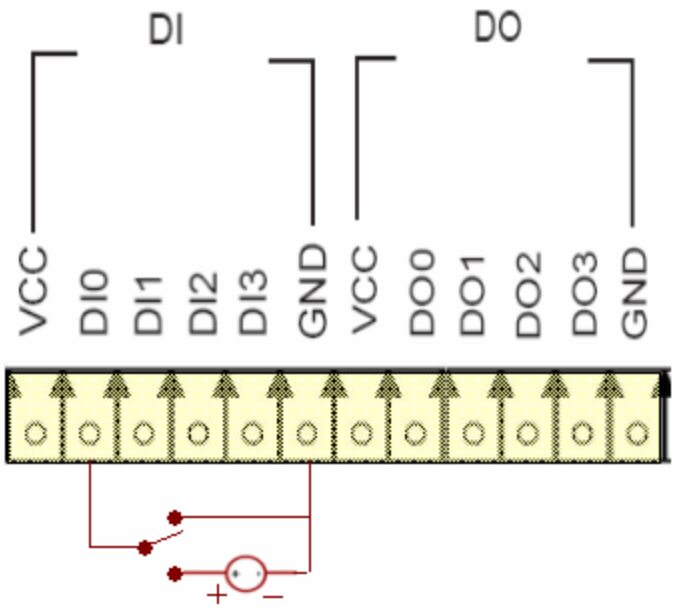


Figure 2-9: DIO Interface Pinout Locations



Dry contact levels (0: GND, 1: Open)

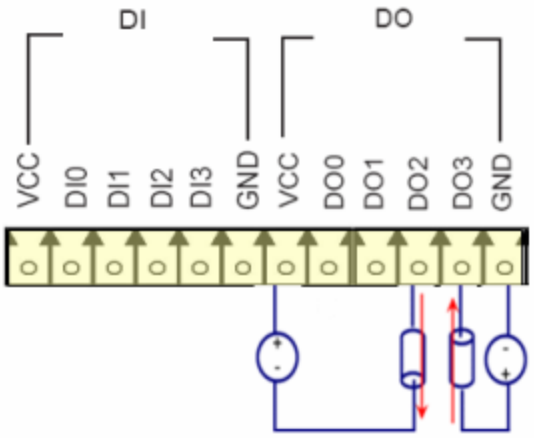
Figure 2-10: Digital Input (Dry contact)



0 ~ 50V DC input range & 10 kHz speed

Wet contact levels (0: +2 V max, 1: +4 V ~ +50 V)

Figure 2-11: Digital Input (Wet contact)



DO ch 2000 VDC isolation and 200 mA max/ch sink current keeps. 5V~30V DC output range and 10kHz.

Figure 2-12: Digital Output

2.5.4 Ethernet Connectors

CN Label: **J1** and **J2** (motherboard label)

CN Type: RJ-45

CN Location: See **Figure 2-7**

CN Pinouts: See **Table 2-10**

A GbE connection can be made between the Ethernet connector and a Local Area Network (LAN) through a network hub.

PIN	DESCRIPTION	PIN	DESCRIPTION
1	TRD0P0	10	TRD3M0
2	TRD0M0	11	L0_100
3	TRD1P0	12	L0_1000
4	TRD1M0	13	ACT_0
5	+2.5V	14	+3.3V
6	GND	15	GND
7	TRD2P0	16	GND
8	TRD2M0	17	GND

9	TRD3P0	

Table 2-10: LAN Connector Pinouts

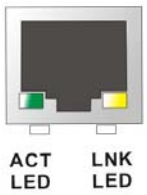


Figure 2-13: LAN Connector

2.5.5 Keyboard/Mouse Connector

CN Label: **KB_MS1** (motherboard label)

CN Type: PS/2

CN Location: See **Figure 2-7**

CN Pinouts: See **Table 2-11** and **Figure 2-14**

The VITO-350 keyboard and mouse connector is a standard PS/2 connector.

PIN	DESCRIPTION
1	KB DATA
2	MS DATA
3	GND
4	VCC
5	KB CLOCK
6	MS CLOCK

Table 2-11: Keyboard Connector Pinouts

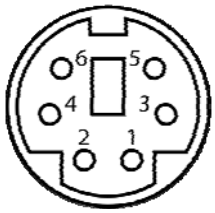


Figure 2-14: PS/2 Pinout and Configuration

2.5.6 USB Combo Port

CN Label: **CN1** and **CN2** (motherboard label)

CN Type: USB Combo port

CN Location: See **Figure 2-7**

CN Pinouts: See **Table 2-12**

USB devices connect directly to the USB connectors on the rear panel.

PIN	DESCRIPTION	PIN	DESCRIPTION
1	VCC_USB1	5	VCC_USB2
2	D-	6	D-
3	D+	7	D+
4	GND	8	GND

Table 2-12: USB Connector Pinouts

2.5.7 RS-232/422/485 Serial Communications Connectors

CN Label: **COM1** and **COM2**

CN Type: DB-9 male connector

CN Location: See **Figure 2-7**

CN Pinouts: See **Table 2-13** and **Figure 2-15**

The RS-232/422/485 serial connectors (COM1 and COM2) provide serial connections in the RS-232 mode, RS-422 mode or RS-485 mode. Please refer to **Section 2.6.3** for

RS-232/422/485 mode select jumper setting. The two connectors are all directly mounted on the motherboard.

PIN	RS-232	RS-422	RS-485
1	DCD	RX-	DATA-
2	RX	RX+	DATA+
3	TX	TX-	-
4	DTR	-	-
5	GND	GND	GND
6	DSR	-	-
7	RTS	TX+	-
8	CTS	-	-
9	RI	-	-

Table 2-13: COM Port Pinouts

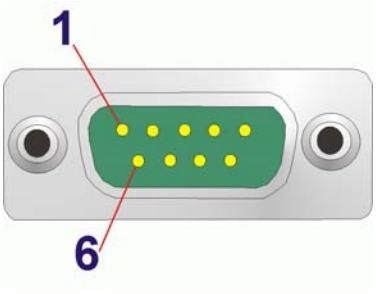


Figure 2-15: COM Port Pinout Locations

2.5.8 Video Input Connector

CN Label: **CAPTURE1**

CN Type: DB-25 male connector

CN Location: See Figure 2-7

CN Pinouts: See Table 2-14

The DB-25 video input connector supports video inputs up to 16 channels.

PIN	DESCRIPTION	PIN	DESCRIPTION
1	1C_3	14	1B_2
2	1D_4	15	1A_1
3	2A_5	16	GND
4	2B_6	17	GND
5	2C_7	18	GND
6	2D_8	19	GND
7	3A_9	20	GND
8	3B_10	21	GND
9	3C_11	22	GND
10	3D_12	23	GND
11	4A_13	24	NC
12	4B_14	25	4C_16
13	4D_15		

Table 2-14: Video Input Connector Pinouts

2.5.9 VGA Connector

CN Label: **VGA1** (motherboard label)

CN Type: See VGA Connector

CN Location: See **Figure 2-7**

CN Pinouts: See **Figure 2-16** and **Table 2-15**

The standard 15-pin female VGA connector connects to a CRT or LCD monitor.

PIN	DESCRIPTION	PIN	DESCRIPTION
1	RED	2	GREEN
3	BLUE	4	NC
5	GND	6	GND
7	GND	8	GND
9	VCC / NC	10	GND
11	NC	12	DDC DAT

PIN	DESCRIPTION	PIN	DESCRIPTION
13	HSYNC	14	VSYNC
15	DDCCLK		

Table 2-15: VGA Connector Pinouts

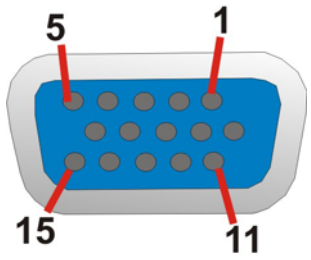
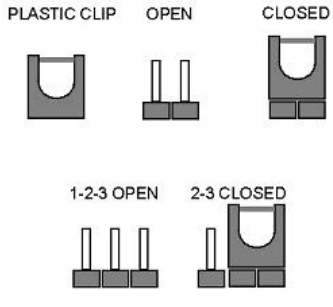


Figure 2-16: VGA Connector

2.6 Jumper Settings

NOTE:

A jumper is a metal bridge that is used to close an electrical circuit. It consists of two metal pins and a small metal clip (often protected by a plastic cover) that slides over the pins to connect them. To CLOSE/SHORT a jumper means connecting the pins of the jumper with the plastic clip and to OPEN a jumper means removing the plastic clip from a jumper.



Jumper

The jumpers on the motherboard of the VITO-350 controller are listed in **Table 2-16**.

Description	Label	Type
Clear CMOS	JP4	3-pin header
CF card master/slave	JP5	2-pin header
COM 1 and COM2 function select	SW1	DIP switch
DO power select	JP2	2-pin header

Table 2-16: Jumpers

2.6.1 Clear CMOS Jumper

Jumper Label: **JP4**

Jumper Type: 3-pin header

Jumper Settings: See **Table 2-17**

Jumper Location: See **Figure 2-17**

If the VITO-350 fails to boot due to improper BIOS settings, the CMOS can be cleared using the battery connector. Disconnect the battery from the connector for a few seconds then reconnect the battery. The CMOS should be cleared.

If the “CMOS Settings Wrong” message is displayed during the boot up process, the fault may be corrected by pressing the F1 to enter the CMOS Setup menu. Do one of the following:

- Enter the correct CMOS setting
- Load Optimal Defaults
- Load Failsafe Defaults.

After having done one of the above, save the changes and exit the CMOS Setup menu.

The clear CMOS jumper settings are shown in **Table 2-17**.

Clear CMOS	Description	
Short 1-2	Keep CMOS Setup	Default
Short 2-3	Clear CMOS Setup	

Table 2-17: Clear CMOS Jumper Settings

The location of the clear CMOS jumper is shown in **Figure 2-17** below.

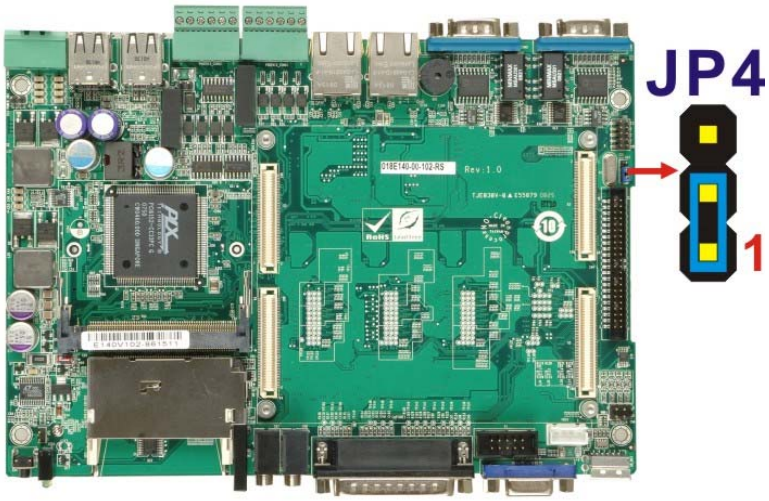


Figure 2-17: Clear CMOS Jumper

2.6.2 CF Card Setup

Jumper Label: **JP5**

Jumper Type: 2-pin header

Jumper Settings: See **Table 2-18**

Jumper Location: See **Figure 2-18**

The CF Card Setup jumper sets the CF Type I card or CF Type II cards as either the slave device or the master device. CF Card Setup jumper settings are shown in **Table 2-18**.

CF Card Setup	Description	
Open	Master	Default
Closed	Slave	

Table 2-18: CF Card Setup Jumper Settings

The CF Card Setup jumper location is shown in **Figure 2-18**.

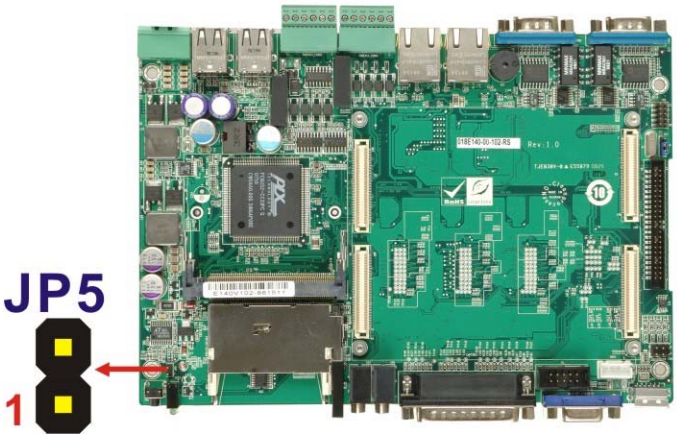


Figure 2-18: CF Card Setup Jumper Location

2.6.3 COM Port Function Select Jumpers

Jumper Label: **SW1**

Jumper Type: DIP switch

Jumper Settings: See **Table 2-19**

Jumper Location: See **Figure 2-19**

The COM Port Function Select jumpers set the communication protocols used by the serial communications ports (COM1 and COM2) as RS-232, RS-422 or RS-485. The COM Port Function Select settings are shown in **Table 2-19**.

COM 1			
SW1	RS-422	RS-485	Terminal Res.
No. 1	On	On	--
No. 2	--	On	--
No. 3	--	--	On
COM 2			
SW1	RS-422	RS-485	Terminal Res.
No. 4	On	On	--
No. 5	--	On	--

No. 6	--	--	On

Table 2-19: COM Port Function Select Jumper Settings

The COM Port Function Select jumper location is shown in **Figure 2-19**. To access the SW1 jumper, please remove the HDD access panel (refer to **Section 4.3 Step 1**).

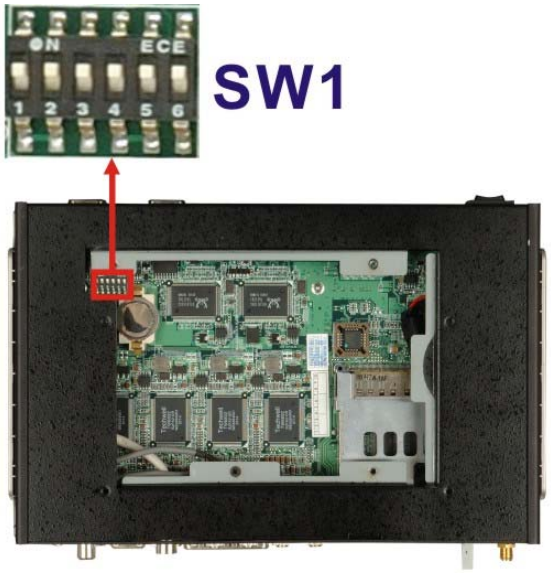


Figure 2-19: COM Port Function Select Jumper Locations

2.6.4 DO Power Select

Jumper Label: **JP2**

Jumper Type: 2-pin header

Jumper Settings: See **Table 2-18**

Jumper Location: See **Figure 2-18**

The DO Power Select jumper allows the digital output power to be set. DO Power Select jumper settings are shown in **Table 2-18**.

DO Power Select	Description	
Open	Internal 5 V	
Closed	External 5 V	Default

Table 2-20: DO Power Select Jumper Settings

The DO Power Select jumper location is shown in **Figure 2-18**.

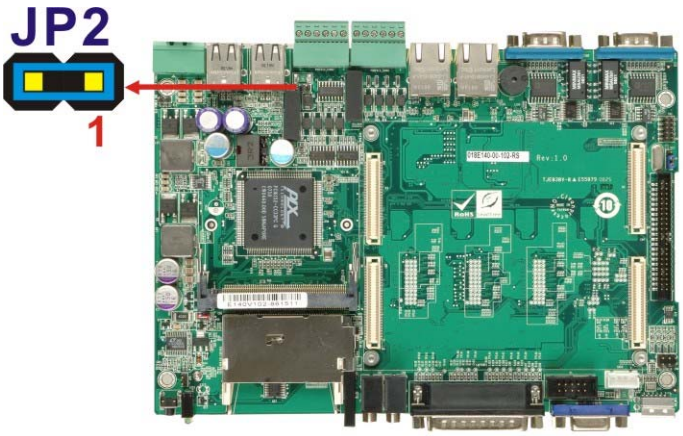


Figure 2-20: DO Power Select Jumper Location

Chapter

3

Unpacking List

3.1 Anti-static Precautions

WARNING:

Failure to take ESD precautions during the installation of the VITO-350 may result in permanent damage to the VITO-350 and severe injury to the user.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the VITO-350 motherboard. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the VITO-350 motherboard, or any other electrical component is handled, the following anti-static precautions are strictly adhered to.

- ***Wear an anti-static wristband***: Wearing a simple anti-static wristband can help to prevent ESD from damaging the board.
- ***Self-grounding***: Before handling the board touch any grounded conducting material. During the time the board is handled, frequently touch any conducting materials that are connected to the ground.
- ***Use an anti-static pad***: When configuring the VITO-350 motherboard, place it on an antic-static pad. This reduces the possibility of ESD damaging the VITO-350 motherboard.
- ***Only handle the edges of the PCB***: When handling the PCB, hold the PCB by the edges.

3.2 Unpacking

3.2.1 Unpacking Precautions

When the VITO-350 is unpacked, please do the following:

- Follow the anti-static precautions outlined in **Section 3.1**.
- Make sure the packing box is facing upwards so the VITO-350 does not fall out of the box.
- Make sure all the components shown in **Section 3.3** are present.

3.3 Unpacking Checklist

NOTE:

If some of the components listed in the checklist below are missing, please do not proceed with the installation. Contact the IEI reseller or vendor that sold the VITO-350 from or contact an IEI sales representative directly. To contact an IEI sales representative, please send an email to sales@iei.com.tw.

3.3.1 Package Contents

The VITO-350 is shipped with the following components:

1	VITO-350 digital video server	
1	Null modem cable	
4	Screw kit	
1	PS/2 keyboard/mouse Y cable	
1	DB-25 to 4-channel BNC cable	
1	Wall mounting kit	

1	Utility CD	

Table 3-1: Package List Contents

3.3.2 Optional Package Contents

1	1 GB CompactFlash® card with Windows® XP Embedded OS image, licensed sticker and SLD software CD (**P/N**: VITO-CF-350XPE-R10)	
1	24VDC 45W power adapter, 90~264VAC input (**P/N**: 63000-UP0451E24P56L-RS)	
1	DB-25 to 16-channel BNC cable	
1	DIN rail mounting kit	

Table 3-2: Package List Contents

Chapter

4

Installation

4.1 VITO-350 Installation Steps

To install the VITO-350 please follow the installation steps below:

Step 1: Install the HDD or CF card.

Step 2: Mount the VITO-350.

Step 3: Connect the external peripheral interface connectors to compatible external devices including:

- RS-232/422/485 serial devices
- Ethernet LAN
- External USB devices
- Keyboard/mouse
- VGA screen

Step 4: Power on the controller

Step 5: Configure the wireless LAN AP.

4.2 CompactFlash® Card Installation

To install the CF card, please follow the steps below.

Step 1: Locate the CF slot on the front panel of the VITO-350.

Step 2: Insert the CF card into the slot (**Figure 4-1**).

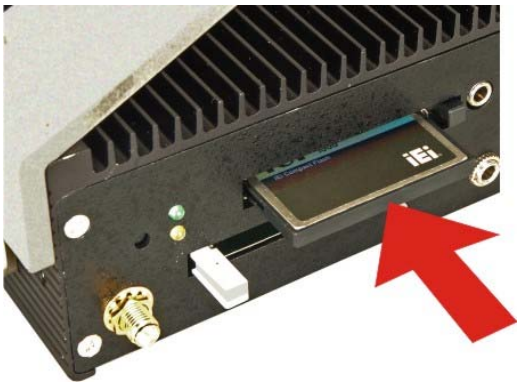


Figure 4-1: CF Card Installation

4.3 HDD Installation

One 2.5” SATA HDD can be installed in the VITO-350 controller. To install the HDD, follow the instructions below.

Step 1: Remove the eight bottom panel retention screws, six on the bottom panel and two on two side panels (**Figure 4-2**). Lift the bottom panel off the VITO-350.

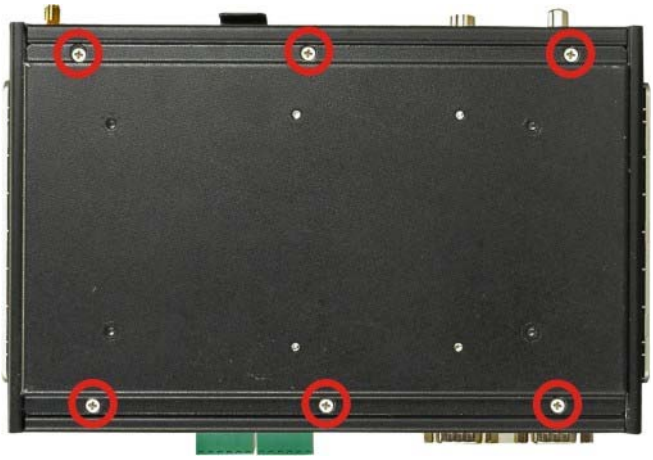


Figure 4-2: Bottom Panel Retention Screws (Bottom)

Figure 4-3: Bottom Panel Retention Screws (Side)

Step 2: The HDD bracket is secured inside the HDD access panel with four retention screws (**Figure 4-4**). Remove the four retention screws to remove the HDD bracket from the panel.

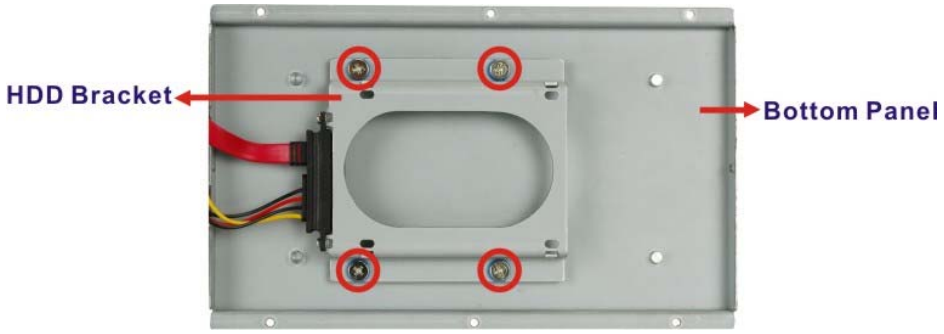


Figure 4-4: HDD Bracket Retention Screws

Step 3: Connect the HDD with the SATA cable secured on the HDD bracket.

Step 4: Align the retention screw holes on the bottom of the HDD with the retention screw holes on the bracket.

Step 5: Insert four retention screws from the bottom of the bracket to secure the HDD with the bracket (**Figure 4-5**).

Figure 4-5: HDD Retention Screws

Step 6: Replace the HDD bracket onto the HDD access panel and reinsert the four previously removed retention screws (**Figure 4-6**).

Figure 4-6: HDD Installation

Step 7: Reinstall the bottom panel.

4.4 VITO-350 Series Mounting

4.4.1 Wall Mounting

To mount the VITO-350 series, please follow the steps below.

Step 1: Locate the four VITO-350 series mounting bracket retention screw holes on the sides of the chassis.

Step 2: Align the retention screw holes on the first bracket with the VITO-350 series retention screw holes on one side of the chassis. Insert one of the retention screws into each of the retention holes. See **Figure 4-7**.

Figure 4-7: Mounting Bracket Retention Screw Holes

Step 3: Align the retention screw holes on the second bracket with the VITO-350 series retention screw holes on the other side of the chassis. Insert one of the retention screws into each of the retention holes.

Step 4: Drill four properly spaced holes into the surface on which the controller is going to be mounted.

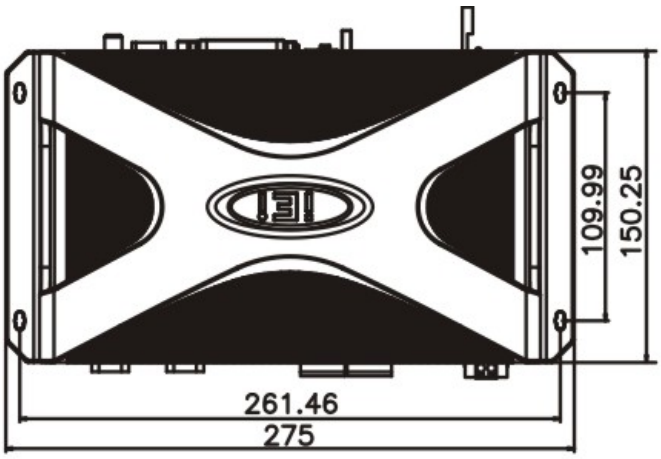


Figure 4-8: Wall Mounting Dimensions (mm)

Step 5: Insert one machine screw into each of the four retention holes on the bracket and into the wall or surface on which the VITO-350 series is mounted.

4.4.2 DIN Mounting

To mount the VITO-350 controller onto a DIN rail, please follow the steps below.

Step 6: Attach the DIN rail mounting bracket to the bottom panel of the controller. Secure the bracket to the controller with the supplied retention screws (**Figure 4-9**).

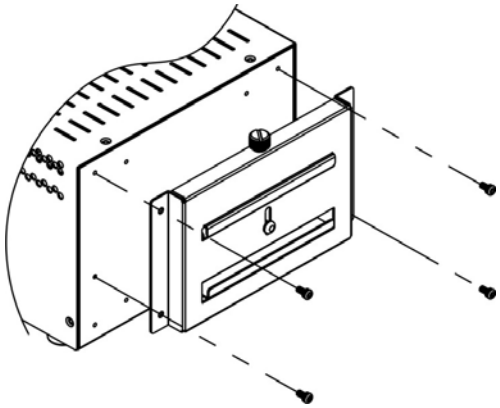


Figure 4-9: DIN Rail Mounting Bracket

Step 7: Make sure the inserted screw in the center of the bracket is at the lowest position of the elongated hole (**Figure 4-10**).

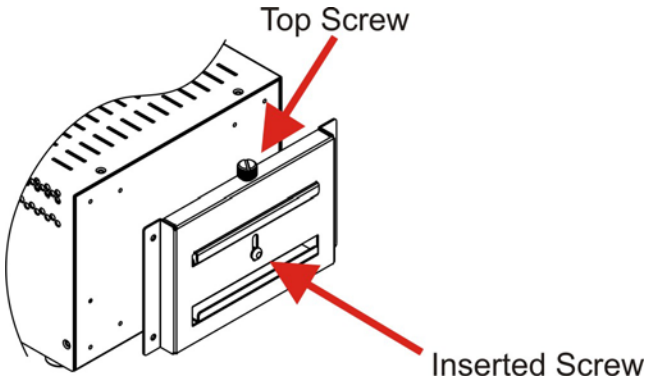


Figure 4-10: Screw Locations

Step 8: Place the DIN rail flush against the back of the mounting bracket making sure the edges of the rail are between the upper and lower clamps (**Figure 4-11**).

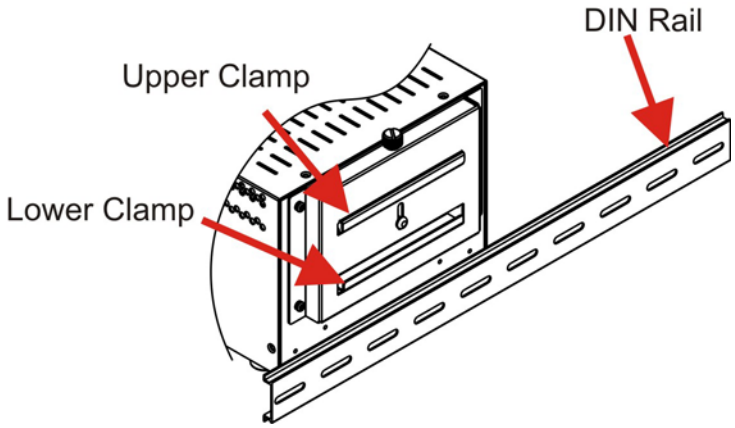


Figure 4-11: Mounting the DIN RAIL

Step 9: Secure the DIN rail to the mounting bracket by turning the top screw clockwise. This draws the lower clamp up and secures the controller to the DIN rail (**Figure 4-12**).

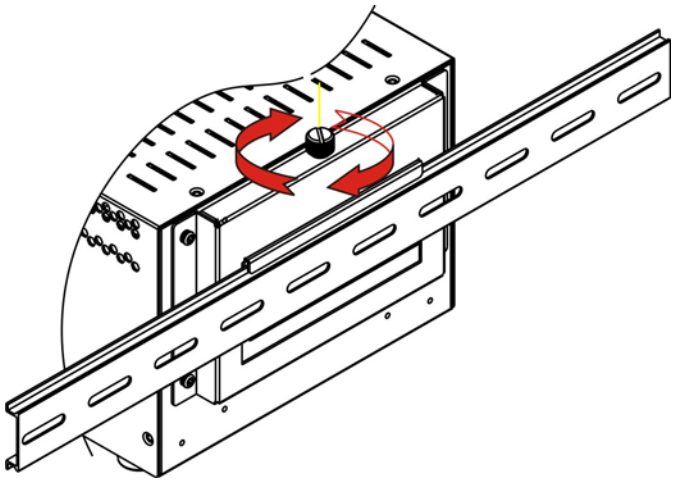


Figure 4-12: Secure the Assembly to the DIN Rail

4.5 External Peripheral Interface Connections

The following external connectors are located on the front and rear panel of the VITO-350 controller:

- 1 x PS/2 keyboard and mouse connector
- 2 x RJ-45 Ethernet connectors
- 2 x DB-9 (male) serial port connectors

- 4 x USB 2.0 connectors
- 1 x DB-15 (female) VGA connector
- 1 x DB-25 (male) video input connector

Instructions on how to connect these external devices to the VITO-350 controller are provided below.

4.5.1 PS/2 Y-Cable Connection

The VITO-350 has a PS/2 connector on the external peripheral interface panel. The dual PS/2 connector is connected to the PS/2 Y-cable that came with the VITO-350. One of the PS/2 cables is connected to a keyboard and the other to a mouse to the system. Follow the steps below to connect a keyboard and mouse to the VITO-350.

Step 1: **Locate the dual PS/2 connector**. The location of the PS/2 connector is shown in **Chapter 3**.

Step 2: **Insert the keyboard/mouse connector**. Insert the PS/2 connector on the end of the PS/2 y-cable into the external PS/2 connector. See **Figure 4-13**.

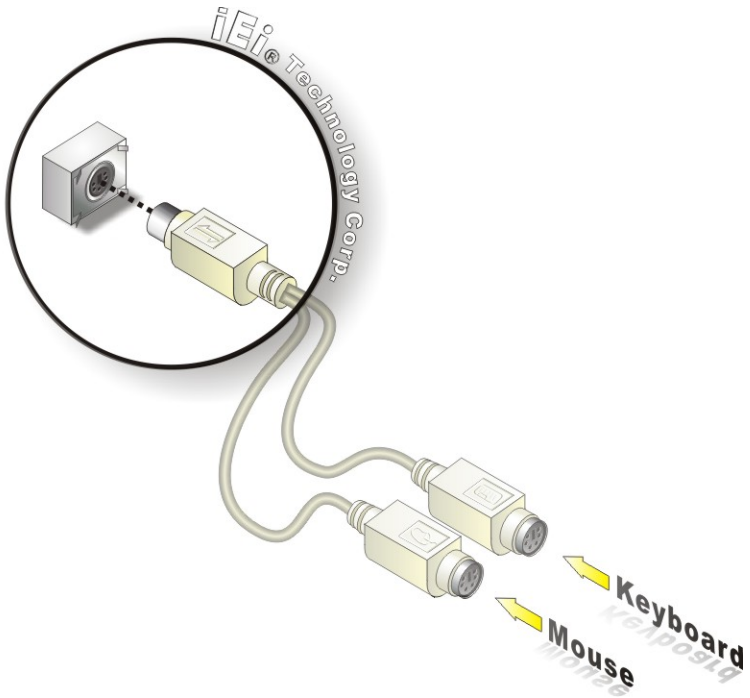


Figure 4-13: PS/2 Keyboard/Mouse Connector

Step 3: **Connect the keyboard and mouse**. Connect the keyboard and mouse to the appropriate connector. The keyboard and mouse connectors can be distinguished from each other by looking at the small graphic at the top of the connector.

4.5.2 LAN Connection (Single Connector)

There are four external RJ-45 LAN connectors. The RJ-45 connectors enable connection to an external network. To connect a LAN cable with an RJ-45 connector, please follow the instructions below.

Step 1: **Locate the RJ-45 connectors**. The locations of the RJ-45 connectors are shown in **Chapter 2**.

Step 2: **Align the connectors.** Align the RJ-45 connector on the LAN cable with one of the RJ-45 connectors on the VITO-350. See **Figure 4-14**.

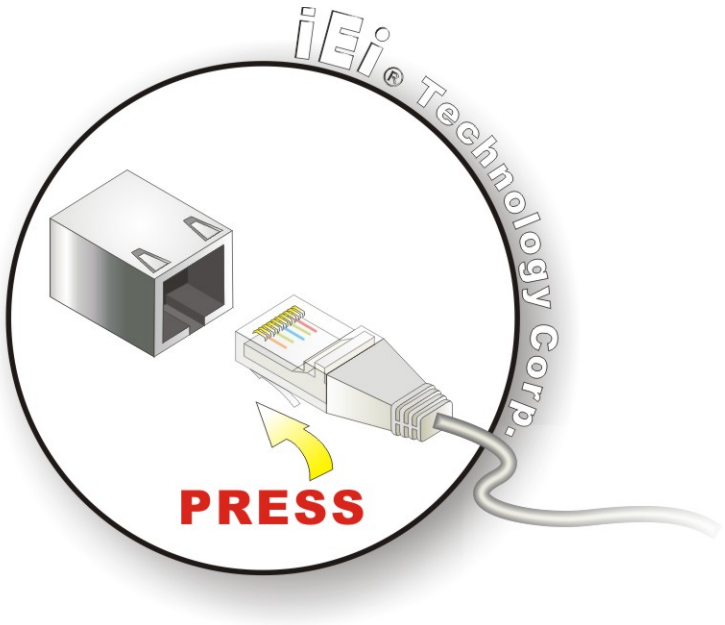


Figure 4-14: LAN Connection

Step 3: **Insert the LAN cable RJ-45 connector.** Once aligned, gently insert the LAN cable RJ-45 connector into the onboard RJ-45 connector.

4.5.3 Serial Device Connection (DB-9)

The VITO-350 has two male DB-9 connectors on the rear panel for three serial devices. Follow the steps below to connect a serial device to the VITO-350.

Step 1: **Locate the DB-9 connector**. The location of the DB-9 connector is shown in **Chapter 2**.

Step 2: **Insert the serial connector**. Insert the DB-9 connector of a serial device into the DB-9 connector on the external peripheral interface. See **Figure 4-15**.

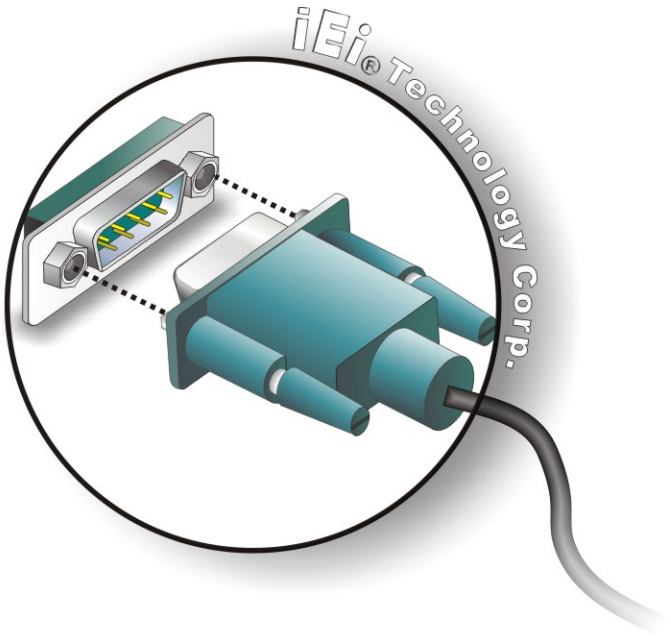


Figure 4-15: Serial Device Connector

Step 3: **Secure the connector**. Secure the serial device connector to the external interface by tightening the two retention screws on either side of the connector.

4.5.4 USB Connection (Dual Connector)

The external USB Series "A" receptacle connectors provide easier and quicker access to external USB devices. Follow the steps below to connect USB devices to the VITO-350.

Step 1: **Locate the USB Series "A" receptacle connectors**. The location of the USB Series "A" receptacle connectors are shown in **Chapter 2**.

Step 2: **Insert a USB Series "A" plug**. Insert the USB Series "A" plug of a device into the USB Series "A" receptacle on the external peripheral interface. See **Figure 4-16**.

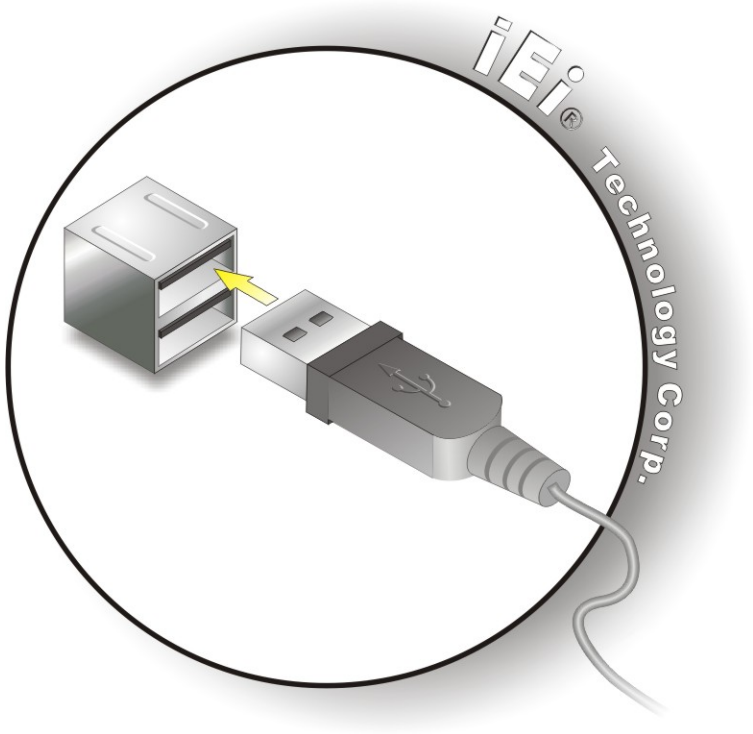


Figure 4-16: USB Connector

4.5.5 VGA Monitor Connection

The VITO-350 has a single female DB-15 connector on the rear panel. The DB-15 connector is connected to a CRT or VGA monitor. To connect a monitor to the VITO-350, please follow the instructions below.

Step 1: **Locate the female DB-15 connector**. The location of the female DB-15 connector is shown in **Chapter 2**.

Step 2: **Align the VGA connector**. Align the male DB-15 connector on the VGA screen cable with the female DB-15 connector on the external peripheral interface.

Step 3: **Insert the VGA connector** Once the connectors are properly aligned, insert the male connector from the VGA screen into the female connector on the VITO-350. See **Figure 4-17**.

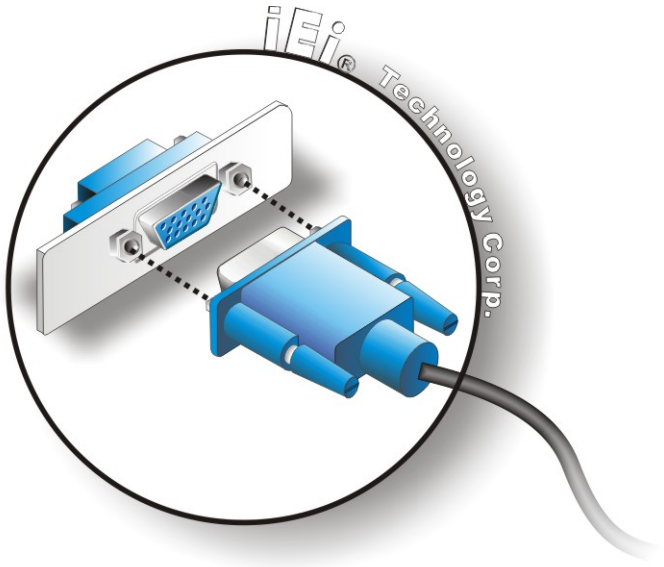


Figure 4-17: VGA Connector

Step 4: **Secure the connector**. Secure the DB-15 VGA connector from the VGA monitor to the external interface by tightening the two retention screws on either side of the connector.

4.6 Power Up

To power up the system, please do the following.

Step 1: Make sure the system is properly mounted on a wall or on other surface.

Step 2: Make sure all the peripheral connectors are properly connected to their

respective devices.

Step 3: Connect the power cable into the power terminal block on the rear panel. See **Figure 4-18**.

Figure 4-18: Power Terminal Block

Step 4: Connect the plug on the other side of the cable to the mains.

Step 5: Push the power switch on the rear panel. See **Figure 4-19**.

Figure 4-19: Power Switch

Step 6: The power LED in the rear panel light up accordingly. See **Figure 4-20**.

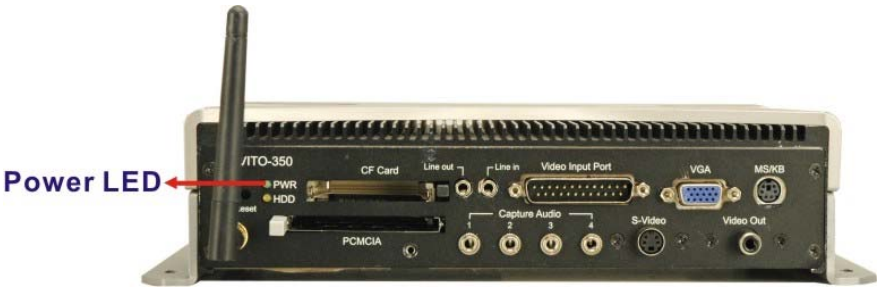


Figure 4-20: Power and Power LED

Step 7: The system boots up and loads the respective Windows operating system.

4.7 Wireless LAN Configuration

To enable the wireless LAN of the VITO-350, the wireless access point (AP) has to be configured in the OS environment. To configure the wireless AP, follow the steps below.

Step 1: Install the Atheros Clinet Utility from the driver CD that came with the VITO-350.

Step 2: Launch the Atheros Clinet Utility.

Step 3: In Atheros Clinet Utility, select **Profile Management** tab and click **Scan** button.

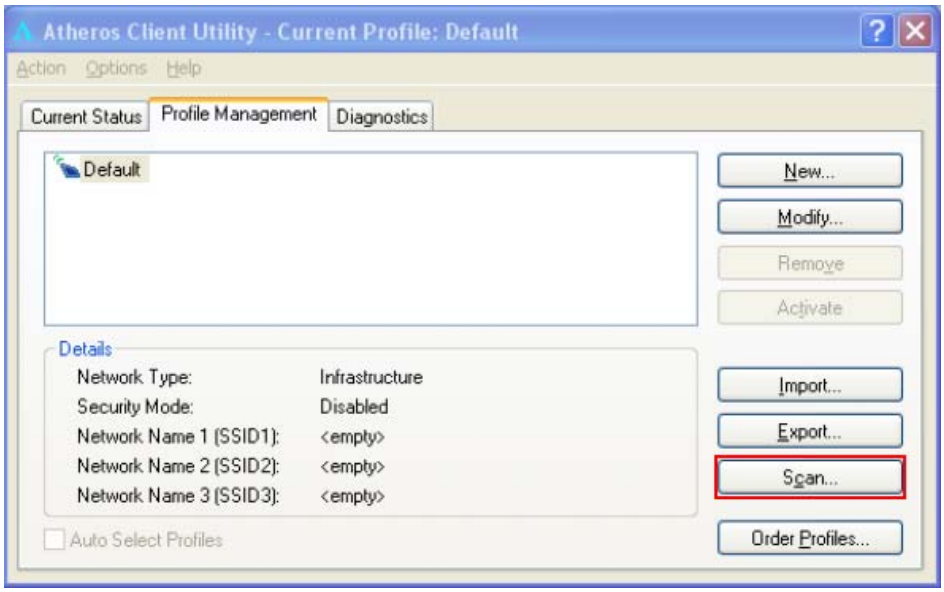


Figure 4-21: Atheros Clinet Utility – Profile Management

Step 4: A list of wireless AP is shown in the Available Infrastructure and Ad Hoc Networks window. Select one of the APs and click **Activate** button.

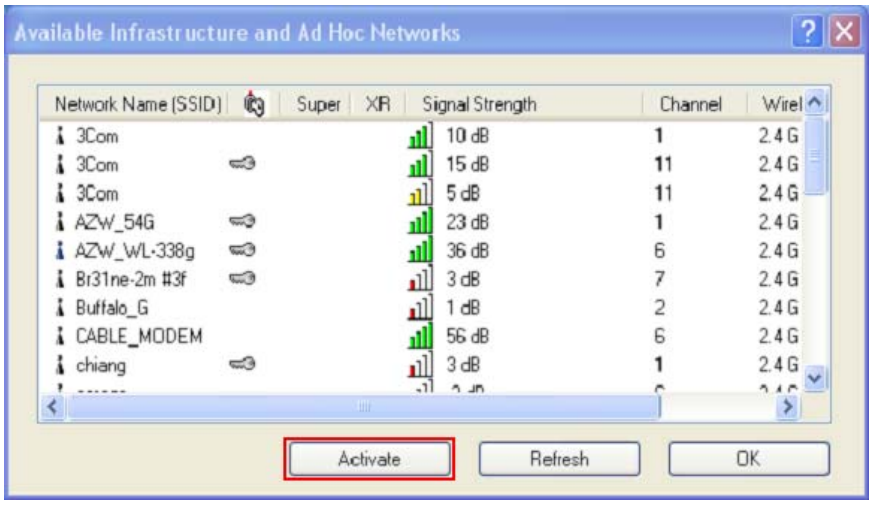


Figure 4-22: Available Infrastructure and Ad Hoc Networks

Step 5: Enter a name for this profile in the Profile Management window.

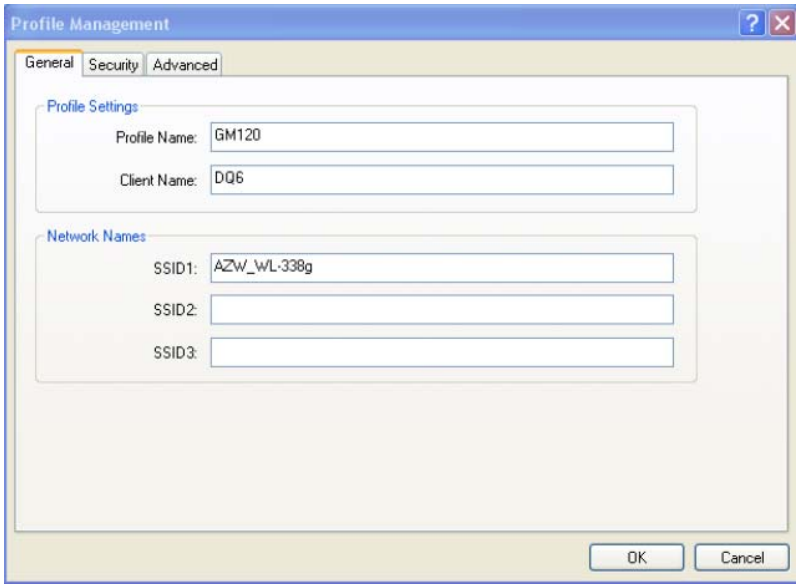


Figure 4-23: Profile Name Setup

Step 6: Select the Security tab and select a security option. Click **Configure…** button.

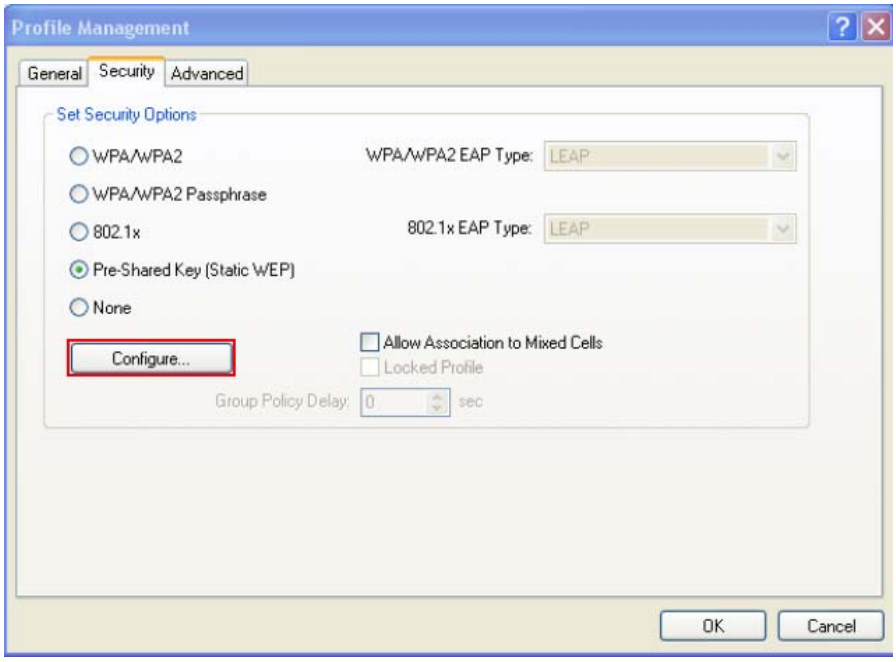


Figure 4-24: Security Selection

Step 7: The security configuration window appears. Please configure all the necessary information for the security settings. Click OK.

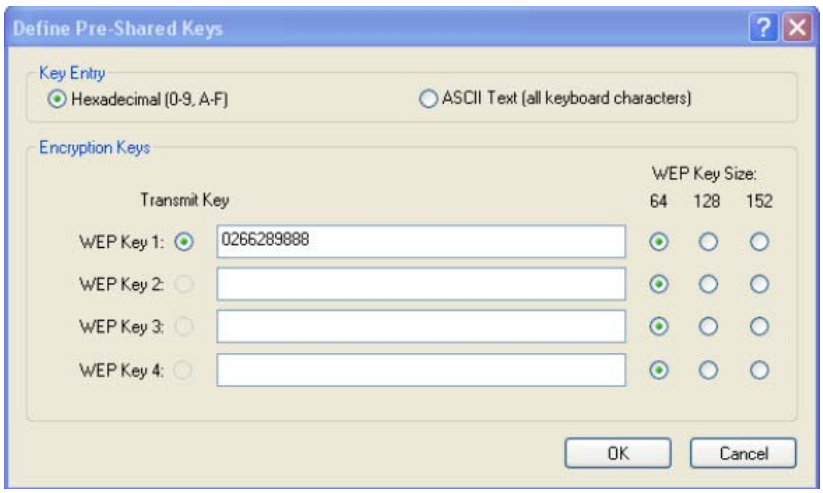


Figure 4-25: Security Configuration

Step 8: Click OK in the Profile Management window.

Step 9: The information is shown in the **Current Status** tab of the Atheros Clinet Utility.

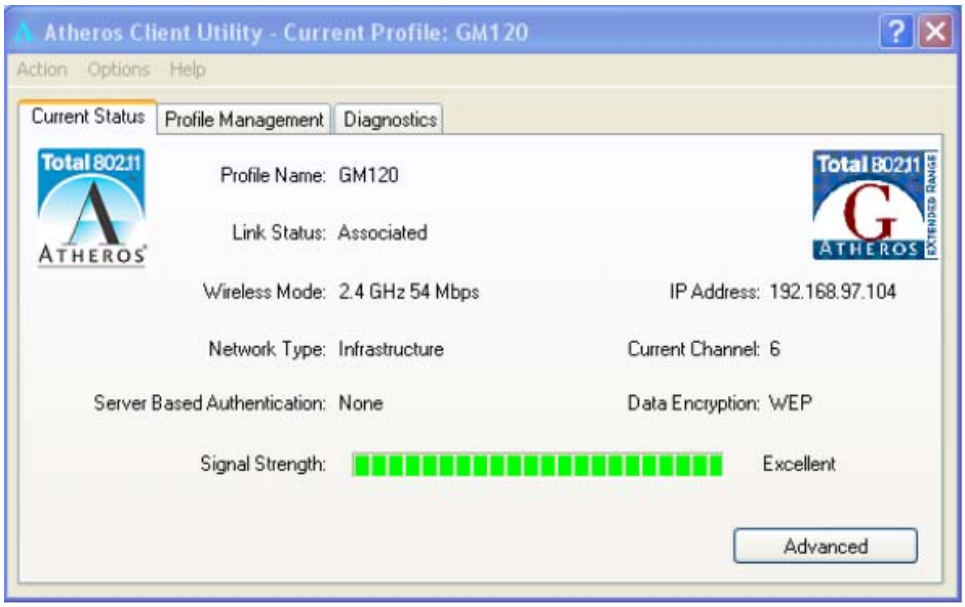


Figure 4-26: Current Status

Chapter

5

Troubleshooting and Maintenance

WARNING:

Take Anti-Static precautions whenever maintenance is being carried out on the controller components. Failure to take anti-static precautions can cause permanent controller damage.

5.1 Anti-static Precautions

WARNING:

Failure to take ESD precautions during the installation of the VITO-350 may result in permanent damage to the VITO-350 and severe injury to the user.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the VITO-350. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the VITO-350, or any other electrical component is handled, the following anti-static precautions are strictly adhered to.

- ***Wear an anti-static wristband***: Wearing a simple anti-static wristband can help to prevent ESD from damaging the board.
- ***Self-grounding***: Before handling the board or opening the controller, touch any grounded conducting material. During the time the board is handled, frequently touch any conducting materials that are connected to the ground.
- ***Use an anti-static pad***: When configuring the VITO-350, place it on an antic-static pad. This reduces the possibility of ESD damaging the VITO-350.
- ***Only handle the edges of the PCB***: When handling the PCB, hold the PCB by the edges.

5.2 VITO-350 Controller Maintenance Overview

NOTE:

When doing maintenance operations on the controller, please follow the instructions in this chapter. Failure to follow these instructions may lead to personal injury and controller damage.

To preserve the working integrity of the VITO-350 controller, the controller must be properly maintained. If controller components need replacement, the proper maintenance procedures must be followed to ensure the controller can continue to operate normally.

5.3 Controller Troubleshooting

This section provides some simple troubleshooting suggestions.

5.3.1 The Controller Doesn't Turn On

If after turning the controller on, there is no power (indicated by the power LED on the front panel not turning on) please do the following:

Step 1: Check that the power cable is properly connected to the terminal block on the controller rear panel.

Step 2: Check that the power cable connector is properly plugged into the power source.

Step 3: Make sure the power button is turned on.

Figure 5-1: Power Switch

Step 4: Plug the controller into a monitor and check to see if anything appears on the screen. If the boot-up screen appears it means the power LED has failed. To fix this problem, contact an IEI sales representative directly.

If the above steps have been completed and the controller still doesn't turn on, please do the following.

Step 1: Open the bottom panel.

Step 2: Check that the power switch cable connector is properly connected to the motherboard.

Step 3: Make sure the cable connecting the power switch to the motherboard is still properly attached to the power switch and has not been separated.

5.3.2 The Controller Doesn't Boot Up

If the controller doesn't boot up please do the following:

Step 1: Check the power is turned on. See **Section 5.3.1** above.

Step 2: Make sure the SO-DIMM module is properly installed.

Step 3: Make sure the CF Card is properly installed with a working operating system

Step 4: Reset the controller using the reset CMOS jumper.

5.3.3 More Troubleshooting

Other problem that may occur is listed below:

- ***Nothing appears on the monitor after booting up the controller***: Make sure the monitor is properly connected to the controller and the monitor is connected to a power supply and turned on.

5.4 Component Replacement Procedure

WARNING:

Take Anti-Static precautions whenever maintenance is being carried out on the controller components. Failure to take anti-static precautions can cause permanent controller damage.

The controller components listed below can all be replaced if they fail:

- Motherboard
- SO-DIMM module
- CPU module
- CF Card
- HDD

5.4.1 Motherboard Replacement

The motherboard replacement includes the following two procedures:

Step 1: Removing the malfunction motherboard

Step 2: Installing the replacement motherboard

5.4.1.1 Motherboard Removal

To remove the motherboard, please follow the steps below.

Step 1: Power down the controller.

Step 2: Disconnect all rear panel peripheral device connectors.

Step 3: Remove the bottom panel. The bottom panel is secured to the controller with eight retention screws, six on the bottom panel and two on two side panels (**Figure 5-4**). Remove the eight retention screws and lift the bottom panel off the system.

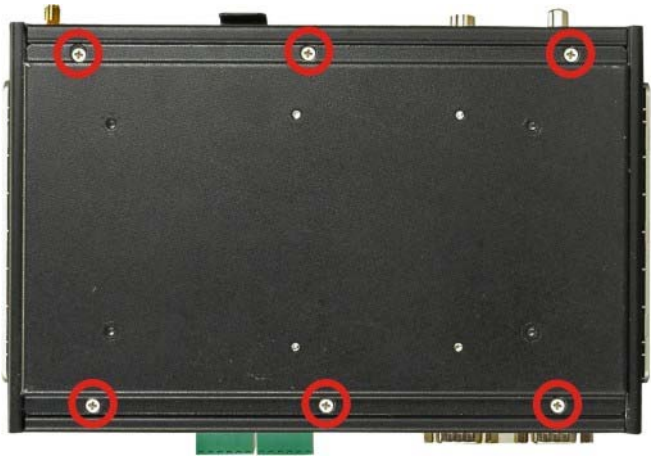


Figure 5-2: Bottom Panel Retention Screws (Bottom)

Figure 5-3: Bottom Panel Retention Screws (Side)

Step 4: Remove the front panel by removing the four front panel retention screws and four serial port retention screws.

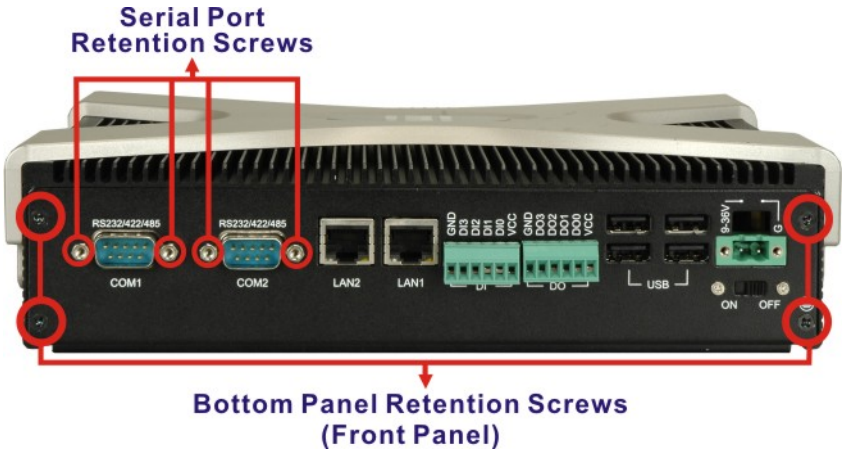


Figure 5-4: Front Panel Retention Screws

Step 5: Remove the rear panel by removing the four rear panel retention screws, two video input port retention screws and two VGA port retention screws. (**Figure 5-5**).

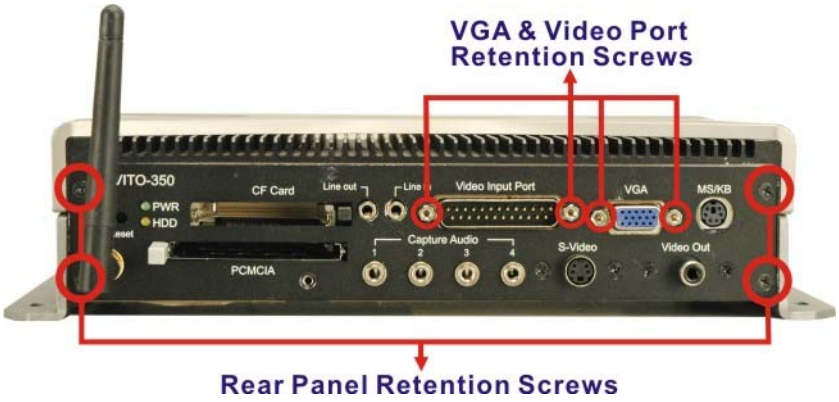


Figure 5-5: Rear Panel Retention Screws

Step 6: Remove the four retention screws that secure the motherboard to the controller. (**Figure 5-6**)

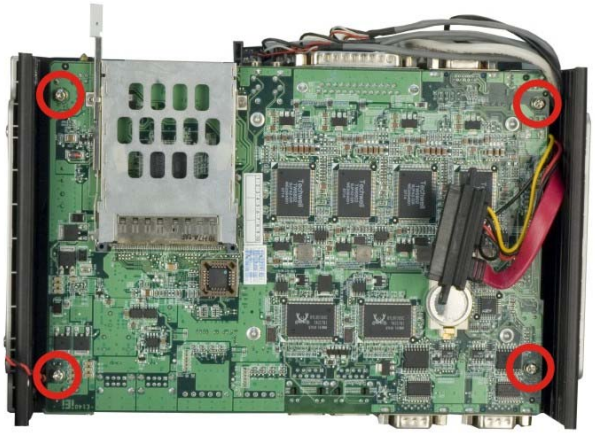


Figure 5-6: Motherboard Retention Screws

Step 7: Remove the motherboard and disconnect the following connectors from the motherboard (Figure 5-7).

- Audio connector
- TV-out connector
- SATA connector
- SATA power connector
- Wireless LAN antenna connector

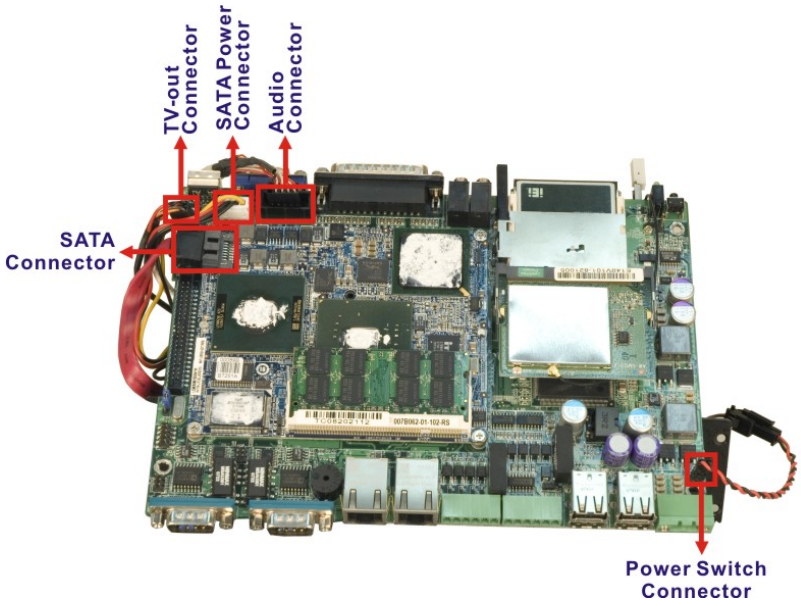


Figure 5-7: Motherboard Connectors

Step 8: Remove the CPU module.

Step 9: Remove the Wireless module.

5.4.1.2 Motherboard Installation

To install the new motherboard or reinstall the old motherboard, please follow the steps below.

Step 1: Install the previously removed CPU module and Wireless module.

Step 2: Reconnect the following cable connectors to the motherboard (Figure 5-7).

- Audio connector
- TV-out connector
- SATA connector
- SATA power connector
- Wireless LAN antenna connector

Step 3: Reinsert the four, previously removed motherboard retention screws to secure the motherboard to the controller. (See **Figure 5-6**)

Step 4: Replace the front panel and bottom panel. Once replaced reinsert the nine previously removed retention screws (**Figure 5-4** and **Figure 5-5**).

Step 5: Remount the controller

Step 6: Reconnect the peripheral devices to the peripheral device connectors on the front panel.

Step 7: Power up the controller.

5.4.2 SO-DIMM Replacement

To replace a SO-DIMM, please follow the installation procedures that follow:

Step 1: Remove the motherboard (see **Section 5.4.1.1**).

Step 2: Locate the preinstalled SO-DIMM.

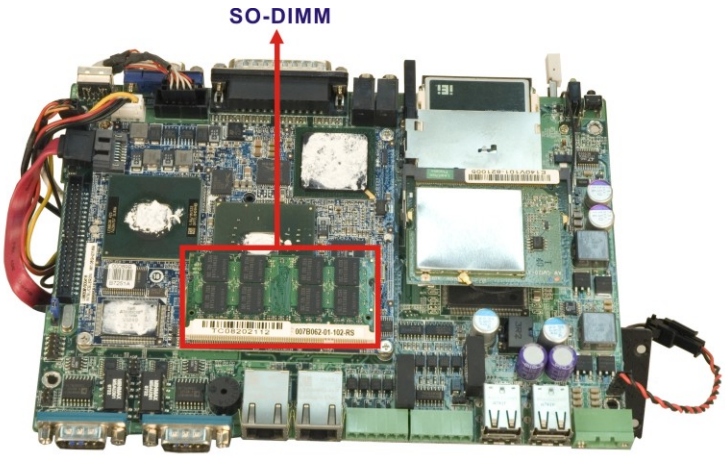


Figure 5-8: Preinstalled VITO-350 SO-DIMM

Step 3: Remove the old SO-DIMM from the socket.

Step 4: Align the new SO-DIMM with the socket.

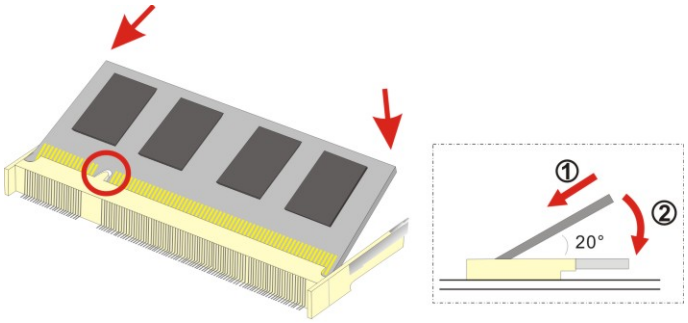


Figure 5-9: SO-DIMM Installation

Step 5: Insert the SO-DIMM. Push the SO-DIMM chip into the socket at an angle. (See **Figure 5-9**)

Step 6: Open the SO-DIMM socket arms. Gently pull the arms of the SO-DIMM socket out and push the rear of the SO-DIMM down. (See **Figure 5-9**)

Step 7: Secure the SO-DIMM. Release the arms on the SO-DIMM socket. They clip into place and secure the SO-DIMM in the socket.

5.4.3 CPU Module Replacement

The IEM-9452 CPU module replacement includes the following two procedures:

Step 1: Removing the malfunction CPU module

Step 2: Installing the replacement CPU module

5.4.3.1 CPU Module Removal

To remove the IEM-9452 CPU module, please follow the steps below.

Step 1: Power down the controller.

Step 2: Disconnect all rear panel peripheral device connectors.

Step 3: Remove the motherboard. See **Section 5.4.1.1**

Step 4: Remove the SO-DIMM. See **Section 5.4.2**

Step 5: Remove the SATA cable.

Step 6: The CPU module is connected to the motherboard with four ETX connectors. Disconnect the CPU module from the motherboard.

5.4.3.2 CPU Module Installation

To install the new CPU module, please follow the steps below.

Step 1: **Align the ETX connectors**. Align the ETX connectors (X2, X3, X4 and X5) with the corresponding connectors on the VITO-350 motherboard.

Step 2: **Gently insert the connectors**. Gently push the CPU module down to ensure the connectors are properly connected.

Step 3: **Reinstall the SO-DIMM and reconnect the SATA cable**.

Step 4: **Reinstall the motherboard.**

Appendix

A

Safety Precautions

WARNING:

The precautions outlined in this chapter should be strictly followed. Failure to follow these precautions may result in permanent damage to the VITO-350.

A.1 Safety Precautions

Please follow the safety precautions outlined in the sections that follow:

A.1.1 General Safety Precautions

Please ensure the following safety precautions are adhered to at all times.

- ***Follow the electrostatic precautions*** outlined below whenever the VITO-350 is opened.
- Make sure the power is turned off and the power cord is disconnected whenever the VITO-350 is being installed, moved or modified.
- Do not apply voltage levels that exceed the specified voltage range. Doing so may cause fire and/or an electrical shock.
- ***Electric shocks can occur*** if the VITO-350 chassis is opened when the VITO-350 is running.
- ***Do not drop or insert any objects*** into the openings of the VITO-350.
- ***If considerable amounts of dust, water, or fluids enter the VITO-350***, turn off the power supply immediately, unplug the power cord, and contact the VITO-350 vendor.
- DO NOT:
  - Drop the VITO-350 against a hard surface.
  - Strike or exert excessive force onto the LCD panel.
  - Touch any of the LCD panels with a sharp object
  - In a site where the ambient temperature exceeds the rated temperature

A.1.2 Anti-static Precautions

WARNING:

Failure to take ESD precautions during the installation of the VITO-350 may result in permanent damage to the VITO-350 and severe injury to the user.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the VITO-350. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the VITO-350 is opened and any of the electrical components are handled, the following anti-static precautions are strictly adhered to.

- ***Wear an anti-static wristband***: Wearing a simple anti-static wristband can help to prevent ESD from damaging any electrical component.
- ***Self-grounding***: Before handling any electrical component, touch any grounded conducting material. During the time the electrical component is handled, frequently touch any conducting materials that are connected to the ground.
- ***Use an anti-static pad***: When configuring or working with an electrical component, place it on an antic-static pad. This reduces the possibility of ESD damage.
- ***Only handle the edges of the electrical component***: When handling the electrical component, hold the electrical component by its edges.

A.2 Maintenance and Cleaning Precautions

When maintaining or cleaning the VITO-350, please follow the guidelines below.

A.2.1 Maintenance and Cleaning

Prior to cleaning any part or component of the VITO-350, please read the details below.

- To clean the VITO-350, gently wipe it with a piece of soft dry cloth or a slightly moistened cloth.
- The interior of the VITO-350 does not require cleaning. Keep fluids away from

the VITO-350 interior.

- Be cautious of all small removable components when vacuuming the VITO-350.
- Turn the VITO-350 off before cleaning the VITO-350.
- Never drop any objects or liquids through the openings of the VITO-350.
- Be cautious of any possible allergic reactions to solvents or chemicals used when cleaning the VITO-350.
- Avoid eating, drinking and smoking within vicinity of the VITO-350.

A.2.2 Cleaning Tools

Some components in the VITO-350 may only be cleaned using a product specifically designed for the purpose. In such case, the product will be explicitly mentioned in the cleaning tips. Below is a list of items to use when cleaning the VITO-350.

- ***Cloth*** – Although paper towels or tissues can be used, a soft, clean piece of cloth is recommended when cleaning the VITO-350.
- ***Water or rubbing alcohol*** – A cloth moistened with water or rubbing alcohol can be used to clean the VITO-350.
- ***Using solvents*** – The use of solvents is not recommended when cleaning the VITO-350 as they may damage the plastic parts.
- ***Vacuum cleaner*** – Using a vacuum specifically designed for computers is one of the best methods of cleaning the VITO-350. Dust and dirt can restrict the airflow in the VITO-350 and cause its circuitry to corrode.
- ***Cotton swabs*** - Cotton swaps moistened with rubbing alcohol or water are excellent tools for wiping hard to reach areas.
- ***Foam swabs*** - Whenever possible, it is best to use lint free swabs such as foam swabs for cleaning.

Appendix

B

IEI Argus Digital Video Surveillance Guide

B.1 System Requirement

CPU	Intel Pentium 4 2.4GHz with Hyper-threading
RAM	1GB (2GB or above recommended)
Video RAM	32 MB or above recommended
Display Chip	ATI Radeon 9550 or above NVIDIA 6200 or above
Display Resolution	1024X768 24bits or above
Operating System	Windows2000 SP4 / Windows XP Pro SP2
DirectX	9.0c or above
Required space for installation	100MB
Recommended HD free space	250GB or above
Supported Hardware	IVC-168G/268G, IVCE-268G, PM-6814/6844 ,VITO-350 series cards

B.2 Features

- Real-time Intelligent 16CH Video Surveillance Software
- Selection of 1/4/6/9/10/13/16 divided screen in Main Console
- Quick Search and Event List Search in Playback
- Real Time Status Display and Notification: Four recording modes to schedule or trigger recordings based on camera and Digital input
- Support DI/DO/PTZ Control
- Intelligent Guard Instant Response: On Screen Display, E-mail, Sound Alarm, Window Vibration, Digital Signal Output
- E-mail Alarm System once Triggered by Motion Detection
- Continuous and Event Triggered Recording
- Real Time Status Display and Notification: System, Video, Event, Alarm and backup status can be seen immediately
- Main program execution actions can be configured
- Supports Different Speeds in Playback

- Intelligent video analysis (Smart Search)
- Recorded video/audio archiving with backup features
- Support IVC-168G/268G, IVCE-268G, PM-6814/6844 ,VITO-350 series cards

B.3 Getting Started

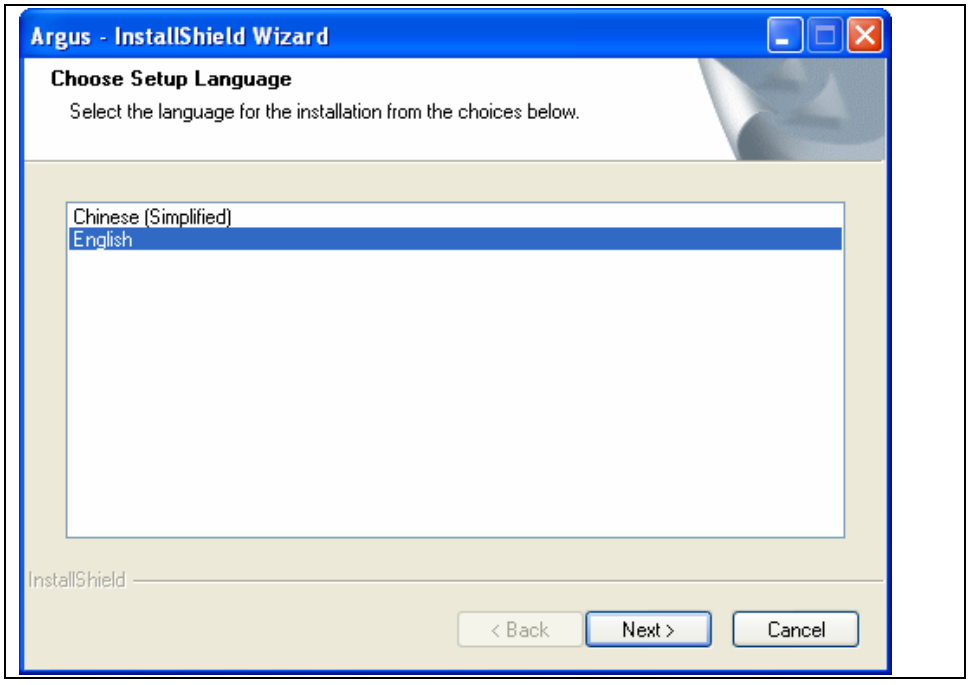
Step 1: Simply place the setup disc into your optical drive and run Autorun.

Step 2: Choose “Install Argus” on the menu

NOTE:

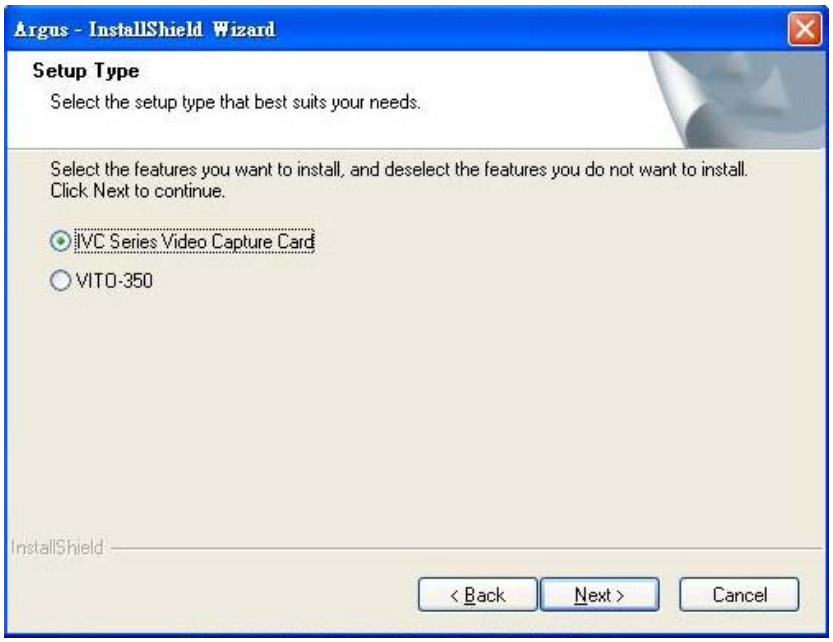
- Install Windows 2000 Kits: Select this to install windows 2000 kits. (It's necessary for user who uses Windows 2000 OS.)
- Install Horus: Select this to install the Argus Digital Video Surveillance software.
- User Manual: Select this to view the User Manual. (Adobe Reader is required.)
- Get Adobe Reader: Select this to get Adobe Reader from Adobe's website.
- Exit: Select this to Exit this Menu screen.

Step 3: Select the language once the "Choose Setup Language" window pop-up, and then click "Next" to continue the installation.

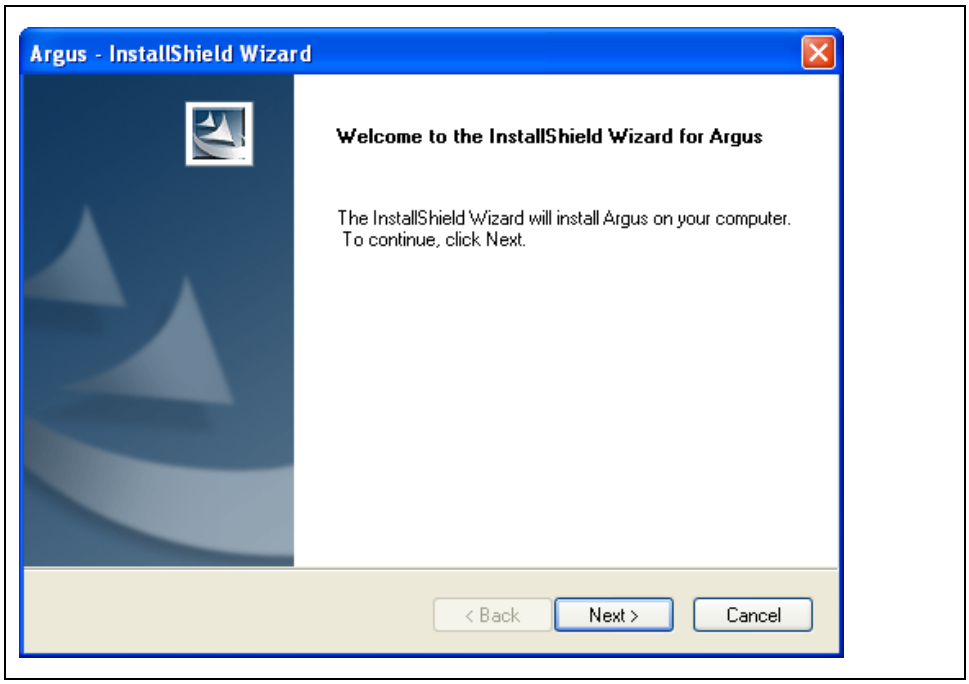


Step 4: Select the device type that has been connected with the computer and click on "Next" to continue. For example, if you setup IVC-168G/268G, IVCE-268G,

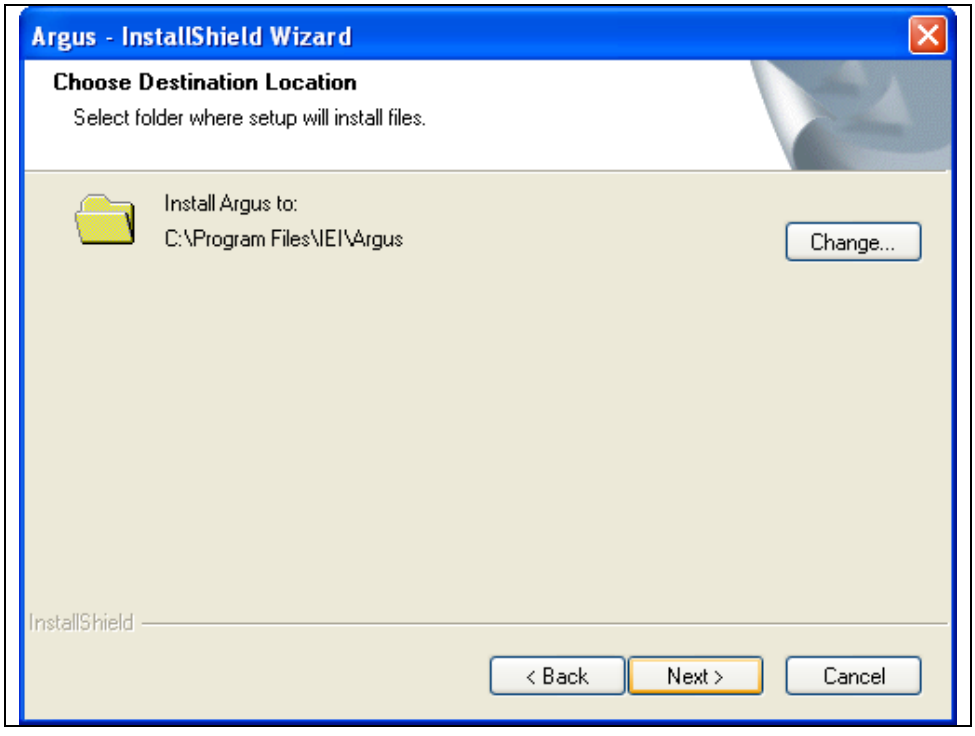
PM-6814/6844 video capture card, please select of “IVC Series Video Capture Card”. If you use Argus on VITO-350, please select of “VITO-350”.


Argus - InstallShield Wizard
Setup Type
Select the setup type that best suits your needs.
Select the features you want to install, and deselect the features you do not want to install.
Click Next to continue.
IVC Series Video Capture Card
VITO-350
InstallShield
< Back
Next >
Cancel

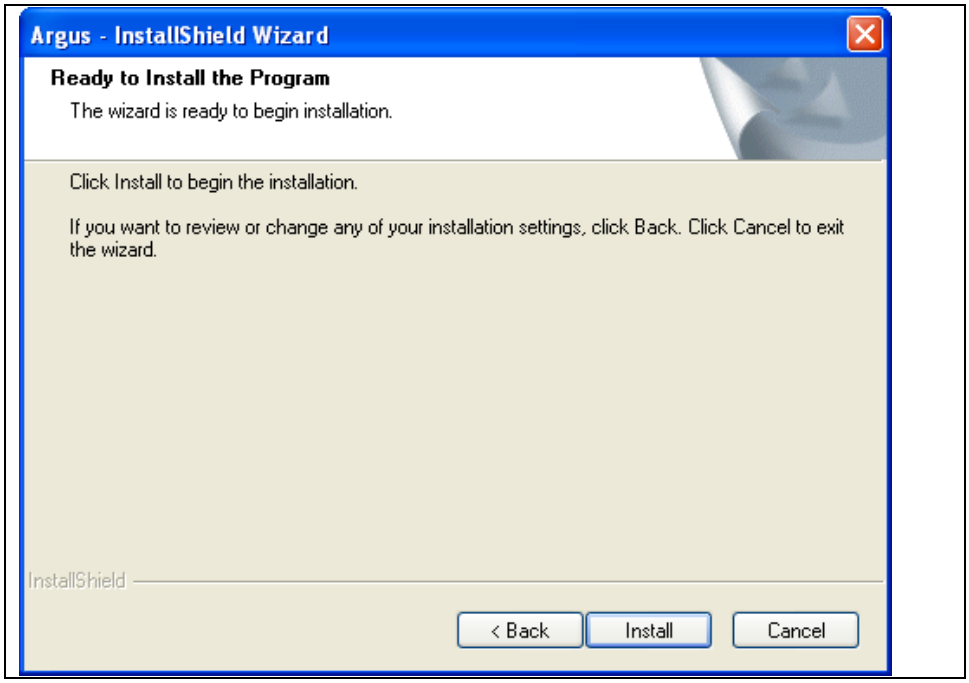
Step 5: The “Welcome” window will then pop-up, click on “Next” to continue.


Argus - InstallShield Wizard
Welcome to the InstallShield Wizard for Argus
The InstallShield Wizard will install Argus on your computer. To continue, click Next.
< Back
Next >
Cancel

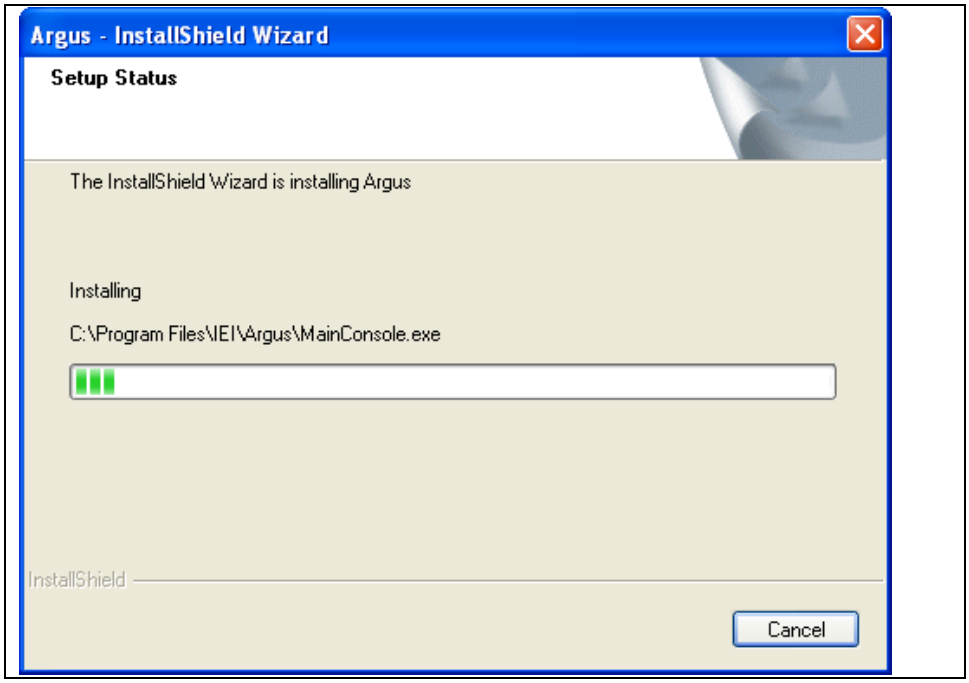
Step 6: Choose where to install the program. Click on “Change” button to browse your computer. Once the directory is specified, click on “Next” to continue.



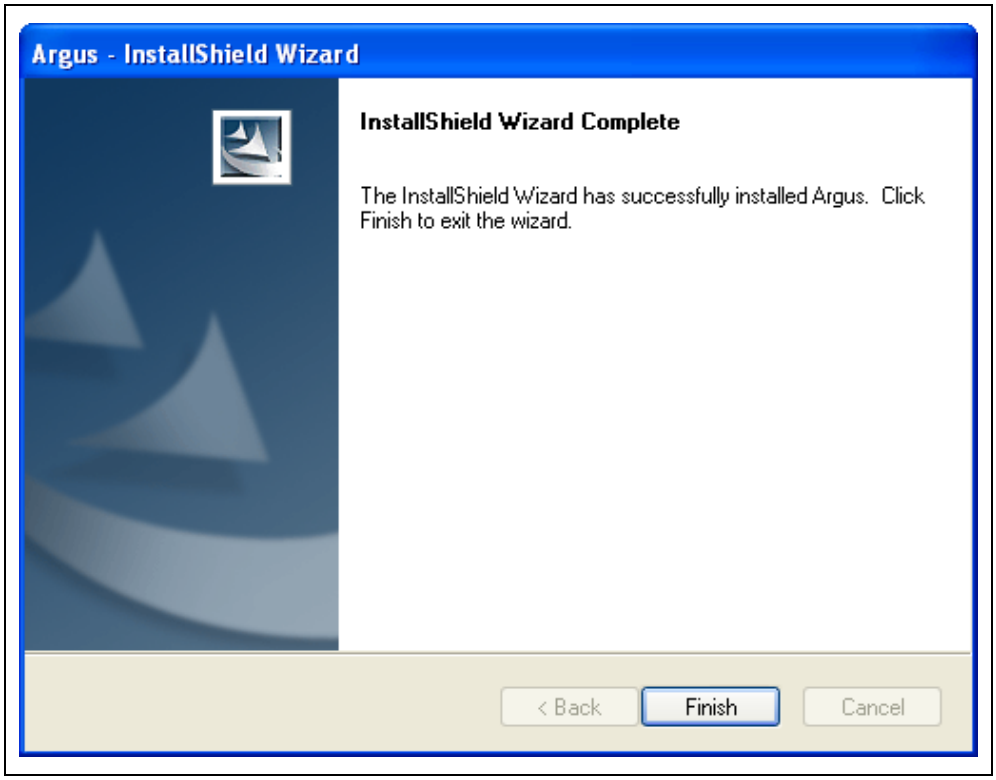
Step 7: The system is ready to install the program. Click on “Install” to begin the installation process.


Argus - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

Step 8: The installation progress is started. Please wait a few minutes to complete the installation.



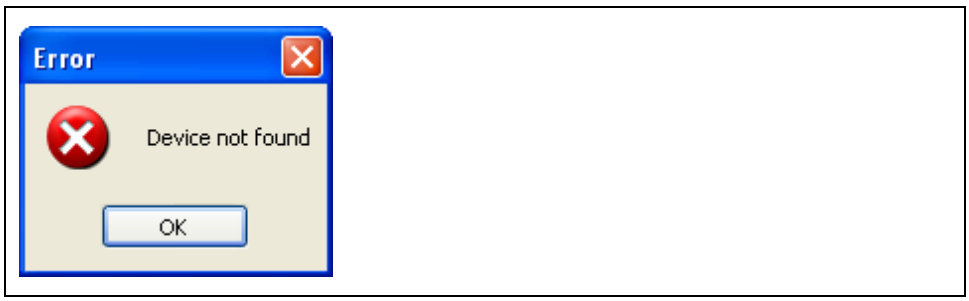
Step 9: Click on “Finish” to exit the InstallShield wizard.


Argus - InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed Argus. Click Finish to exit the wizard.
< Back
Finish
Cancel

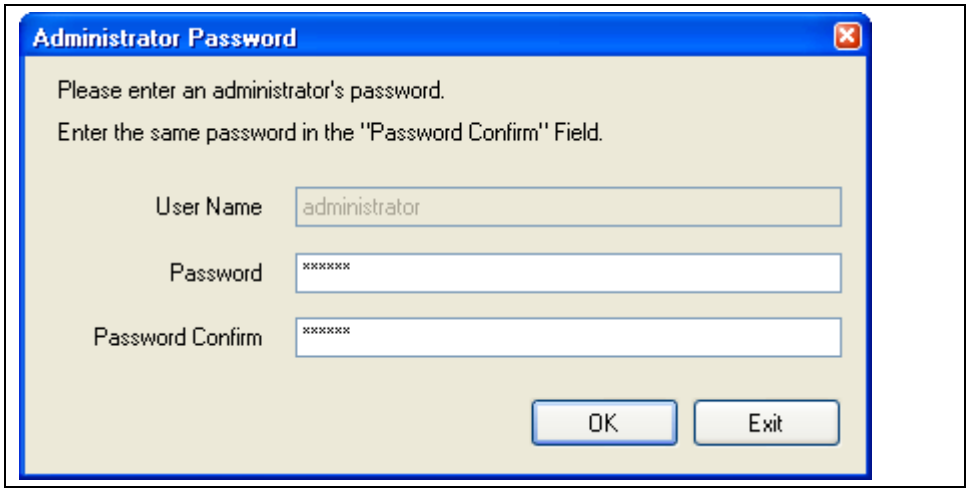
Step 10: The user is prompted to enter the Argus serial number. This serial number may be found on the laser sticker on the companion CD. Enter the serial number in the field.

Step 11: If the serial number is correct, Argus will pop-up the “Thank you for choosing ARGUS,…” message box. Click on “OK” to activate the software.

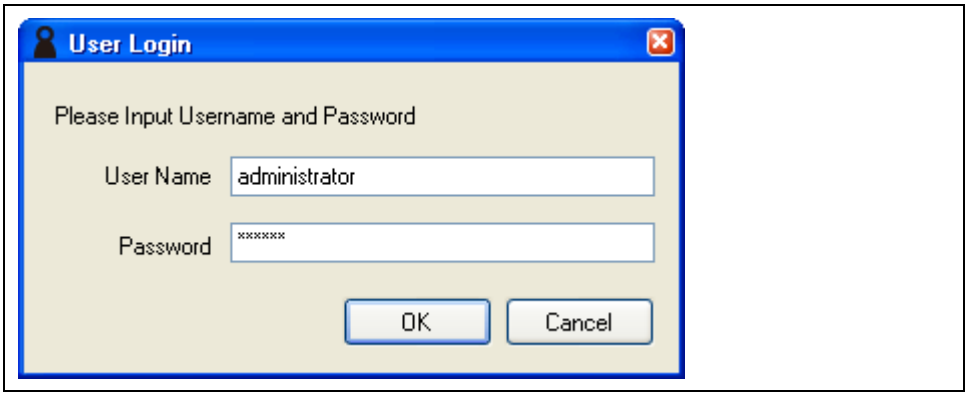
Step 12: The system will then search for the hardware, If there is no any device been successfully connected, click “OK” on the “Device not found” message box to exit the program. For the supported hardware, please refer to “System Requirement” section.



Step 13: Once device is found, the user is prompted to create an administrator account. This account allows full control of Argus. Enter a password for this administrator account in the “Password” field and re-enter it in “Password Confirm” field.



Step 14: The user is then prompted to login by the administrator user name and password. Enter “administrator” in the “User Name” field. Enter the password you just created in the “Password” field.



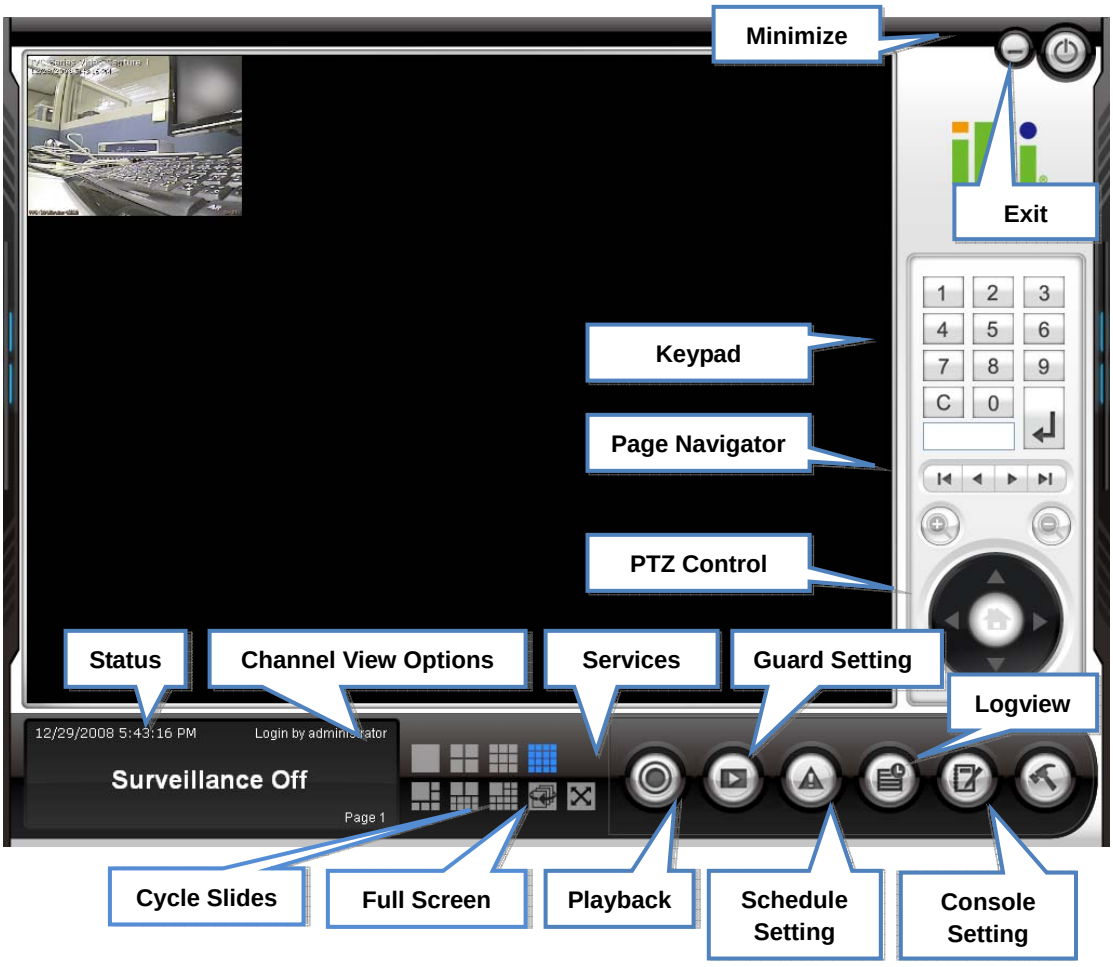
Step 15: The ARGUS starts up successfully.

B.4 Main Console

The major features of Main Console.

- Monitors up to 16 channels of cameras
- Video recording schedule
- Cycling surveillance
- Full screen monitoring
- Status indications
- Supports PTZ cameras
- Motion based recording and alert
- Browser and export the event and system logs
- Support Hot Key control

B.4.1 Console Window

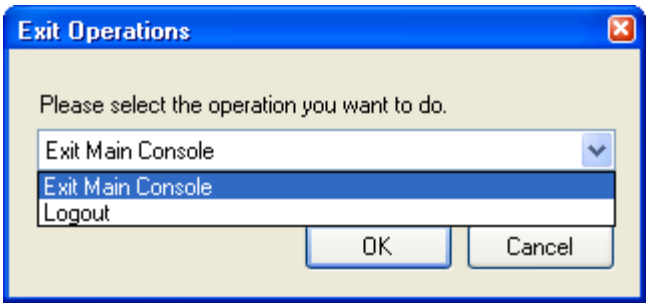


Minimize

This will minimize the main console

Exit

Selecting this will give you two options



• By selecting “Exit Main Console” option this will exit the console itself

• By selecting “Logout” option this will only logout the current user in use

Keypad

This allows you to enter the channel number for the current view. For example if you have 16 channels active, enter “4” to go to channel 4.

Page Navigator

This allows you to navigate in page mode, if you have more than one page active.

PTZ Control

If the channel that is selected supports PTZ function. You may control the camera’s panning, tilting and zooming function from here. If the selected channel does not support PTZ, this will not be actived.

Status

This will indicate the current time, date, user logged in, page, and whether or not the surveillance is on or off.

Channel View Options

There are 7 viewing options for the main console.

- Single Channel
- 2x2 Grid Channels
- 3x3 Grid Channels

- 4x4 Grid Channels
- 1 Main Channel + 5 Secondary Channels
- 2 Main Channel + 8 Secondary Channels
- 1 Main Channel + 12 Secondary Channels

Cycle slides

This will cycle through individual slides.

Full screen

This will view the console in full screen.

Services

Two options will be available when selected

• By selecting “Start Surveillance” all the preset functions from “Guard Setting” and “Schedule Setting” will be activated.

• By selecting “Lock System”, all accessible buttons will be disabled until unlocked.

Playback

This opens the playback window portion of Argus. Find history of video records including individual channels. Search by motion detection within the video records. Set up the backup intervals. Create snapshot(s) of video records and save them as .bmp or .jpg.

Guard Setting

This opens the guard setting of the console. Sets individual channels for various functions including: channel Events, system event, digital input, on screen display, sound alarm, alert email, vibrate window, pop-up message, digital output control.

Schedule Setting

This enters the recording schedule setup. Allows to set the recording time and method for

each individual channels.

Logview

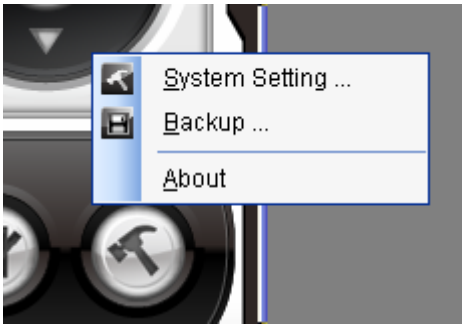
View logs of individual channels and the console system itself. Allows exporting the logs into .CSV based files for easy viewing by Excel.

Console Setting

Adjust the console settings including: startup options, storage locations, display indicators, cameras, user accounts, E-mail account settings, contact information, digital I/O settings.

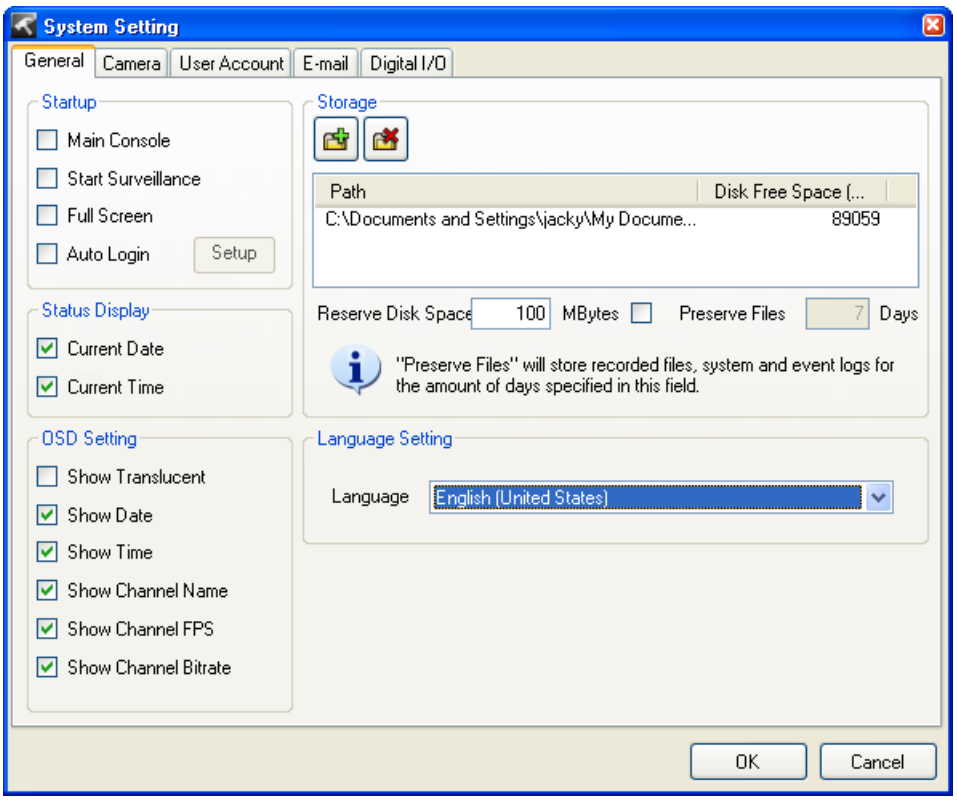
B.4.2 System Setting

This edits General, Camera, User Account, E-mail Digital I/O for your main console.
Click on the Console Setting from mail console, select “System Setting” to edit the settings.



B.4.3 General Setting

This edits startup options, storage locations, status display, and OSD setting and language settings.



Startup

You may select startup options when Windows starts up by checking the following options:

- Main Console: Boots up Argus when Windows OS started
- Start Surveillance: Immediately starts surveillance services upon launching console
- Full Screen: Immediately starts the console in full screen mode
- Auto Login: Automatically logins with a preferred user account

Status Display

These options are for the lower left portion of the console status indicator. You may check these options to display them or not:

- Current Date: Displays or hides the current date in the console's status
- Current Time: Displays or hides the current time in the console's status

OSD Setting

OSD (On Screen Display) are the information displayed on individual channels – this also effects the recording as well. You may check these options to display them or not:

- Show Translucent: Allows translucent effect
- Show Date: Displays or hides the current date

- Show Time: Displays or hides the current time
- Show Channel Name: Displays or hides the channel name
- Show Channel FPS: Displays or hides the channel's frame per second
- Show Channel Bitrate: Displays or hides the channel's current bitrates

Storage

Here you can set where you would like to store recorded files/images. It allows you to add multiple directories, so if the top directory disk space hits the disk space mark, it will go to the next directory down on the list. The "Reserve Disk Space" option allows user to mark the amount of disk space to left over. The "Preserve Files" option allows user to store the recorded files for a certain amount of days if they would only like to store the files temporarily to reduce massive disk space usage.

Language Setting

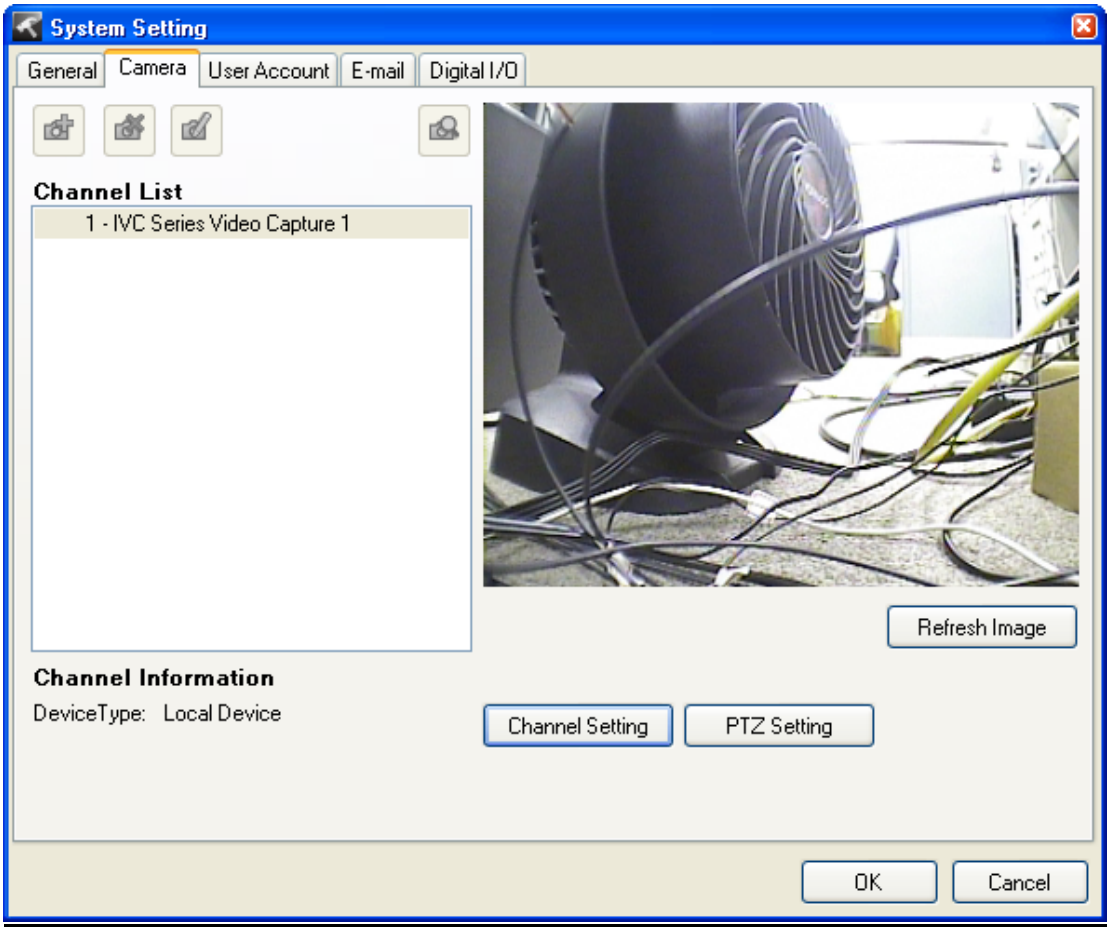
Select a language you preferred to use. Click "OK" button to change the language right away.

B.4.4 Camera Setting

Channel List

You will find all available devices in the channel list. Click on the device name, the camera image will display on the preview area.

.

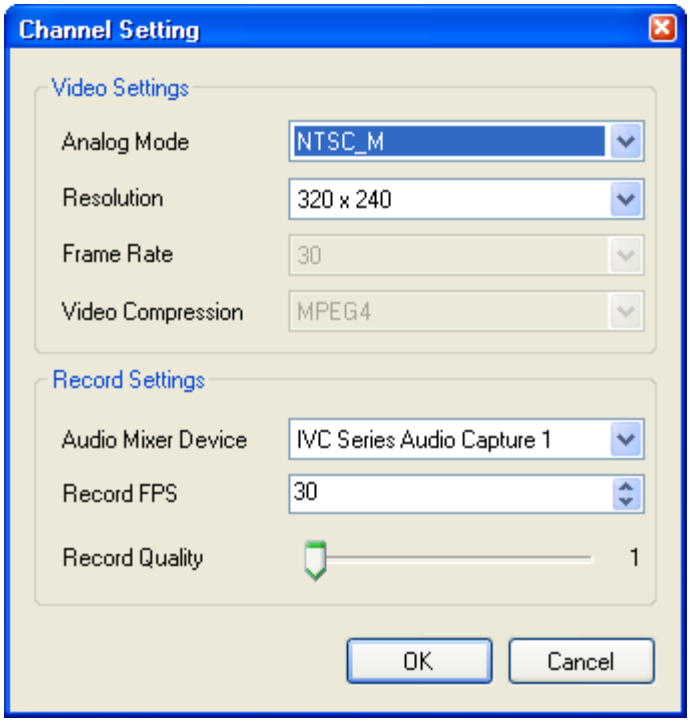


Refresh Image

This will refresh the current preview window's image. A working channel is required to be selected in order to view the image here.

Channel Settings

This allows you to set various options, which may include video settings and record settings.



Video Settings

Analog Mode: You can select NTSC or PAL or ~~and~~ SECAM mode from here.

Resolution: You can select the camera display resolution from here.

Fame Rate: Show the camera video frame rate. NTSC mode is default as 30 frames per second and PAL/SCEAM mode are 25 frames per second.

Video Compression: This version only supports MPEG4 recorded video compression.

Record Settings

Audio Mixer Device: Select an audio mixer device, each channel will auto linked to the right audio mixer.

Record FPS: You setup recording frame rate for this channel.

Record Quality: You setup the recording quality for this channel.

B.4.5 PTZ Setting

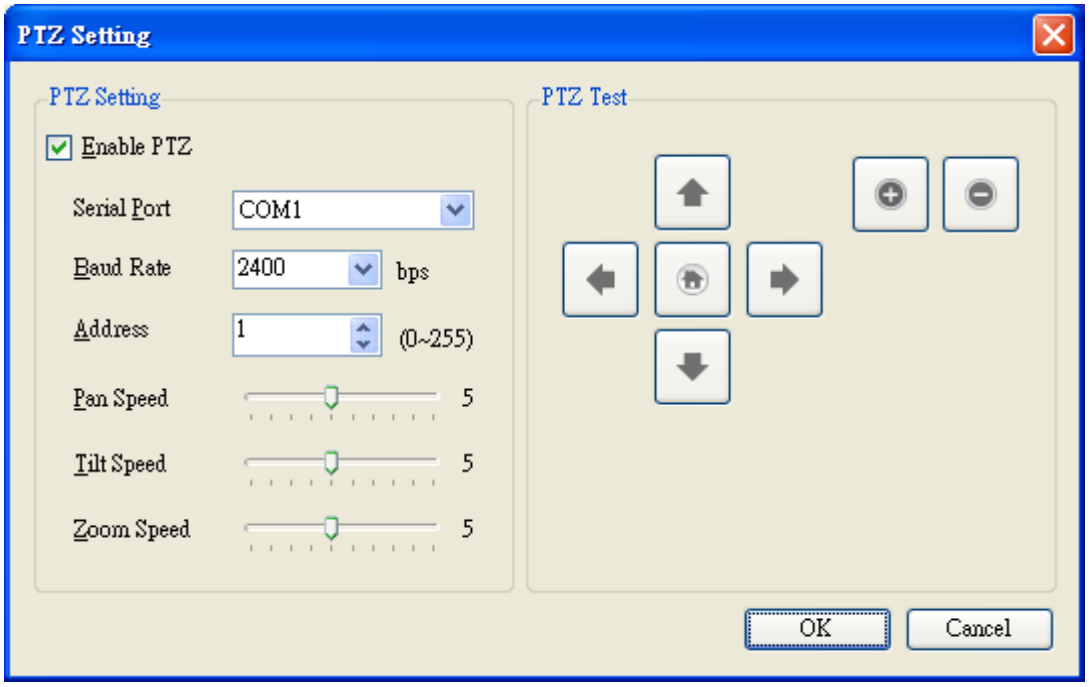
PTZ Settings

This allows you to setup and test the camera's PTZ setting. Follow the camera manufacturer's instruction to install your PTZ camera to your computer. A PTZ camera is usually connected to the computer through RS-485 connector. Check/uncheck the box of "Enable PTZ" to enable/disable the PTZ function.

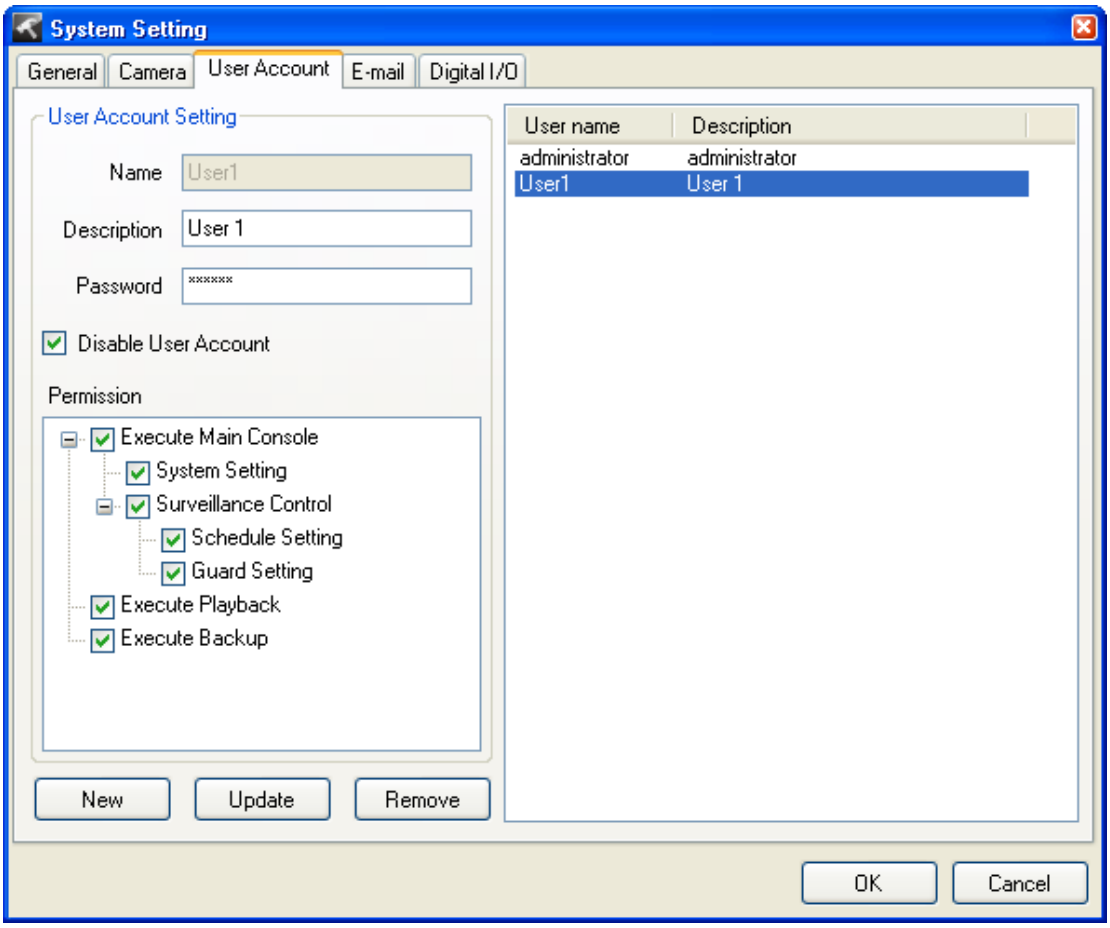
PTZ Setting: Select Serial Port, Baud Rate, and Address according to your PTZ camera.
PTZ Speed: Adjust the Pan, Tilt, Zoom speed by dragging the sliders respectively.

PTZ Test

Click on the test buttons to preview how your PTZ setting works.



B.4.6 User Account Setting



Name

The name of the user account that's being created

Description

The description of the user name of the account

Password

The password for the account that's being created or being modified

Disable User Account

Disables the selected user account

Permission: Check the permission to control how many function(s) can be performed by the existing user account

Main Console

- Execute Main Console: Allows the user account to start the console
- System Setting: Allows the user to modify the system settings
- Surveillance Control: Allows the user to start or stop the current surveillance
- Schedule Setting: Allows the user to define the recording schedule(s)
- Guard Setting: Allows the user to start the guard service

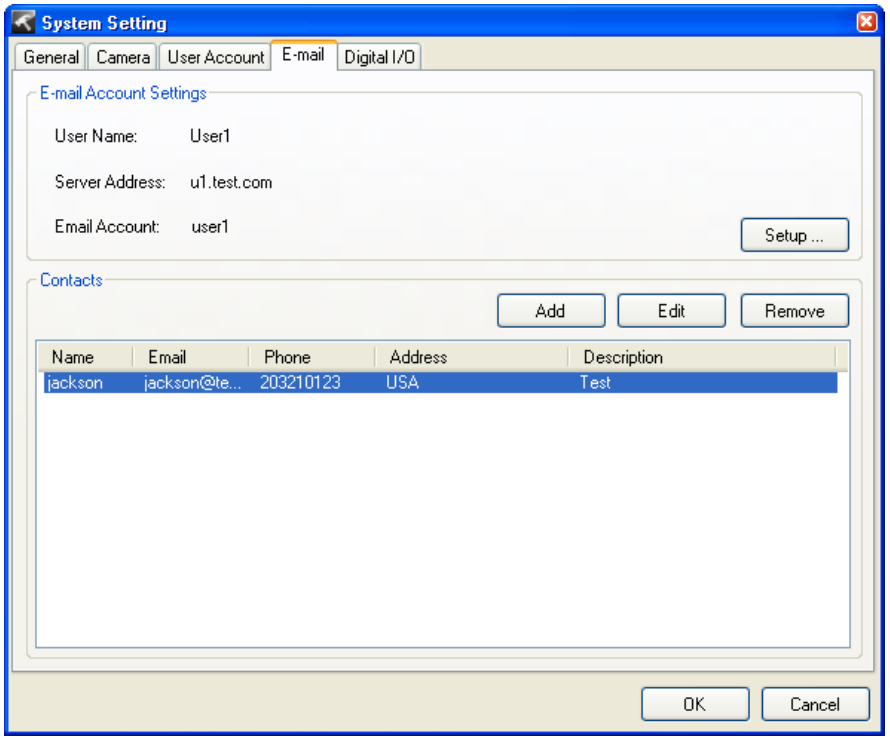
Playback

Execute Playback: Allows the user to access the video playback section

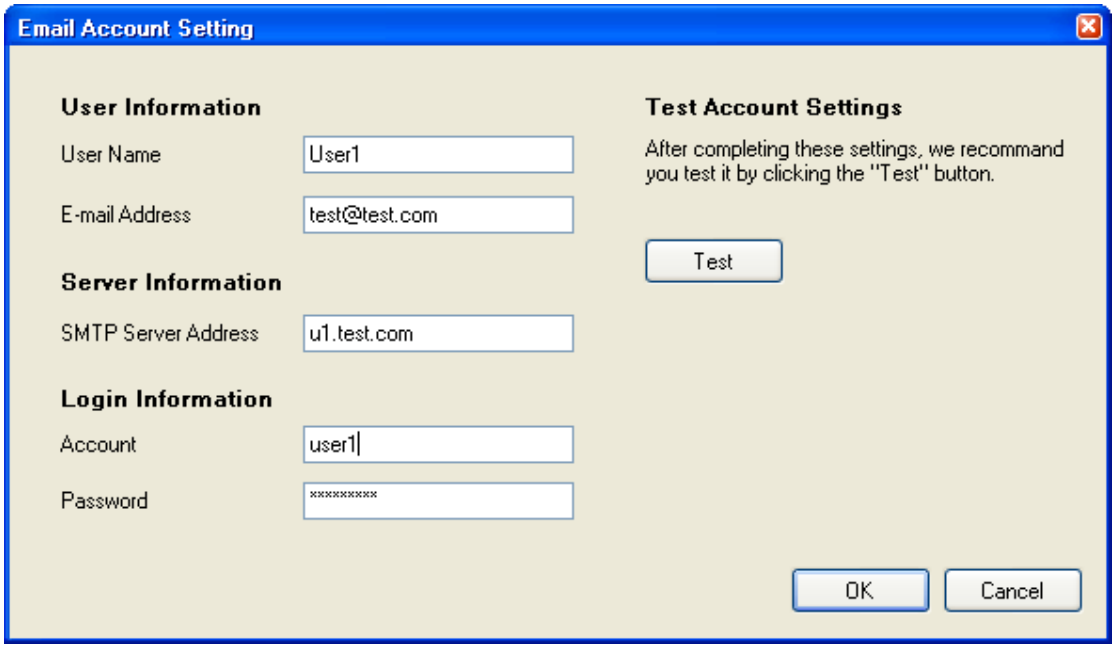
Backup

Execute Backup: Allows the user to execute backup operations

B.4.7 E-Mail Setting



Click “Setup” button to setup E-mail account of sender.



User Information

User Name: You can input your email user name here.

E-mail Address: You can input a sender’s email address here.

Server Information

SMTP Server Address: You input the SMTP address here.

Login Information

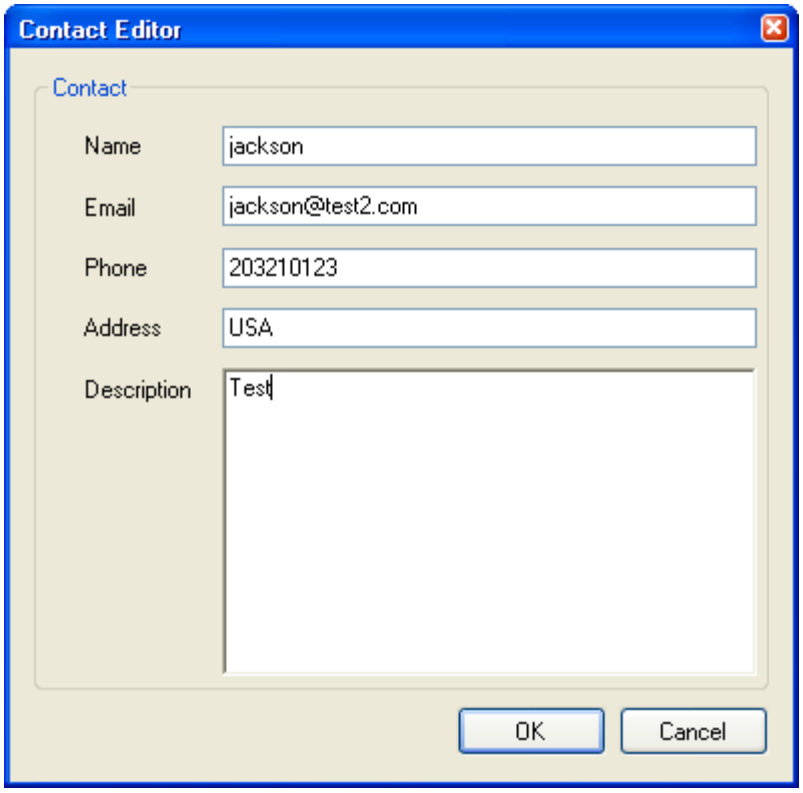
Account: You input your user account that’s associated with the SMTP server here.

Password: You input your user password that’s associated with the SMTP server here.

Test

Click “Test” button to send a test mail to sender’s email address.

Add



You can add contact information for storage purposes. This includes name, email, phone, address and a description.

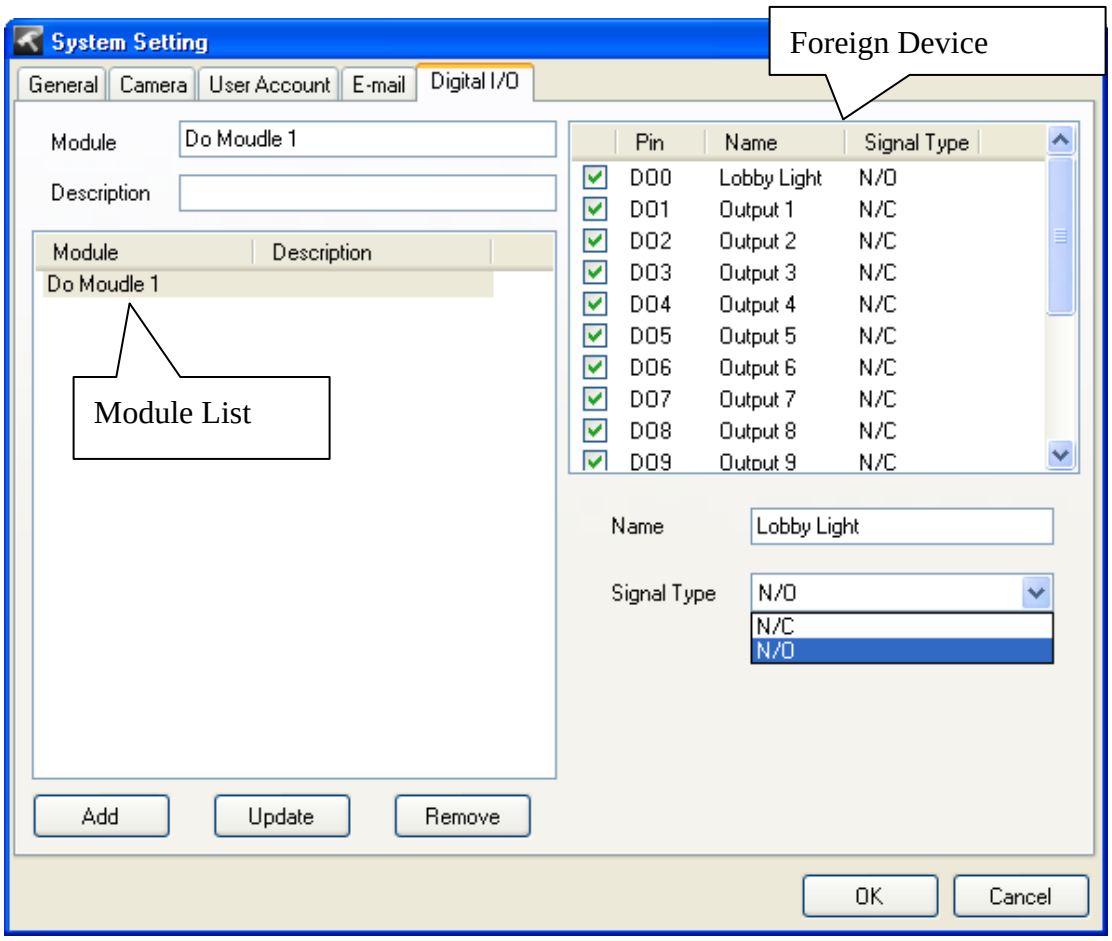
Edit

You can edit existing contact information by selecting it from the list and click on this button.

Remove

You can remove existing contact information by selecting it from the list and click on this button.

B.4.8 Digital I/O Setting



Module Setting

Module: You can input a module name here and press “Add” button to create a new module. The parameter of each digital output control is editable.

Description: To describe the module you created in details.

Module List: All modules will be listed here.

Add: To create a new module.

Update: To update the module.

Remove: To remove the module.

Foreign Device Setting

Name: You can modify the name of the foreign devices.

Signal Type: Edit the signal type from the drop-down menu. N/C is normal close; N/O is

normal open. If your device is connected to a N/O pin on GPIO connecter, then you need to assign an N/C signal for event trigger.

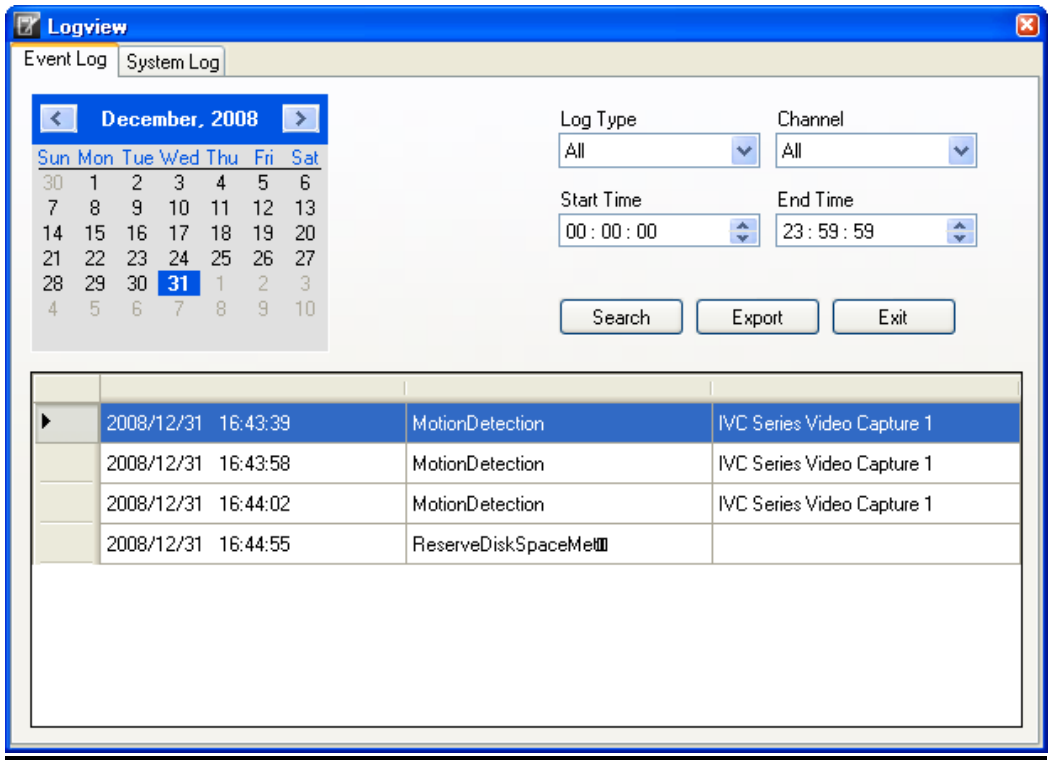
NOTE:

Ensure to click “Update” button to update the settings in case any changes ever have been made to current active module. If you click only on “OK” to quit this, it won’t do any changes.

B.4.9 Logview

Event Log

View the history of event that had been detected by the Guard setting.


Logview
Event Log
System Log
December, 2008
Sun Mon Tue Wed Thu Fri Sat
30 1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30 31 1 2 3
4 5 6 7 8 9 10
Log Type
All
Channel
All
Start Time
00 : 00 : 00
End Time
23 : 59 : 59
Search
Export
Exit
2008/12/31 16:43:39 MotionDetection IVC Series Video Capture 1
2008/12/31 16:43:58 MotionDetection IVC Series Video Capture 1
2008/12/31 16:44:02 MotionDetection IVC Series Video Capture 1
2008/12/31 16:44:55 ReserveDiskSpaceMet

Step 1: Select a day you wish to view.

Step 2: Select a Log Type you wish to filter.

Step 3: Select the start and end time you wish to filter.

Step 4: Click “Search” button to view log list.

Step 5: Click “Export” to export the log list as .CSV file.

Event Log Type

All: Show all logs.

Motion Detection: Only show the event logs of motion detection.

Reserve Disk Space Met: Only show the event logs of disk space has exhausted.

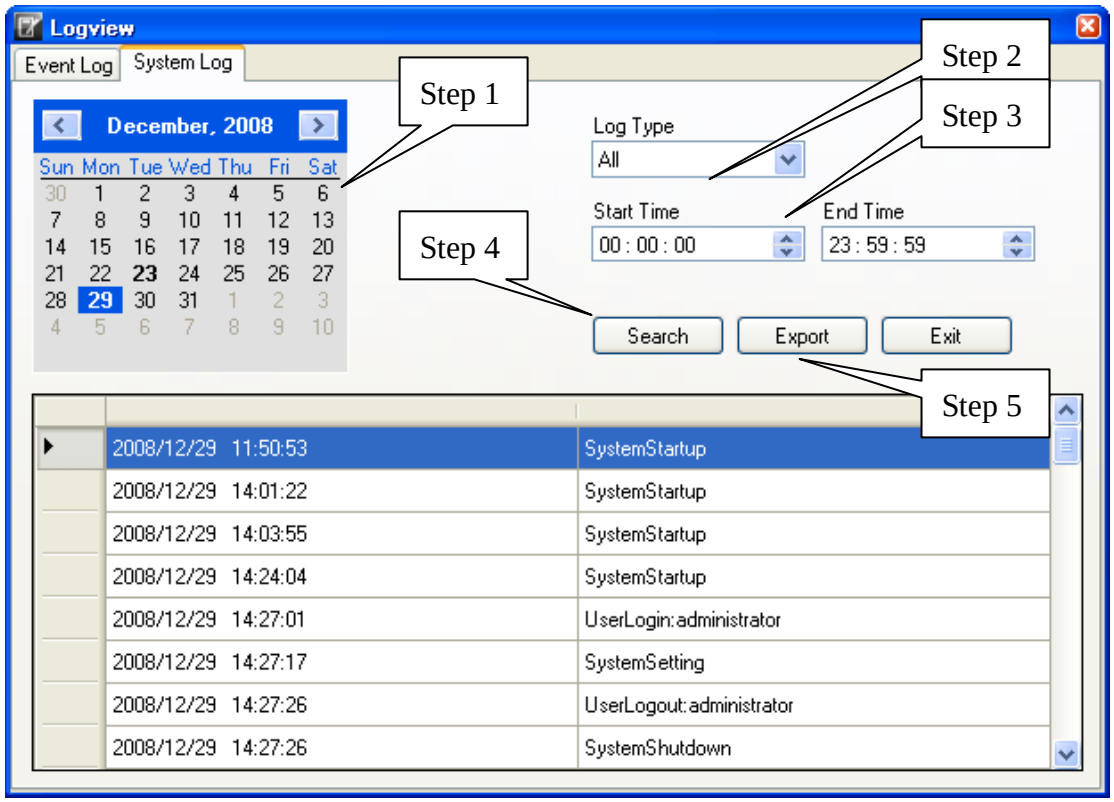
Connection Lost: Only show the event logs of camera connection lost.

Connection Recover: Only show the event logs of camera connection recover.

Digital Input: Only show the event logs of digital signal input has been triggered.

System Log

View the history of system that had been modified.



Step 1: Select a day you wish to view.

Step 2: Select a Log Type you wish to filter.

Step 3: Select the start and end time you wish to filter.

Step 4: Click “Search” button to view log list.

Step 5: Click “Export” to export the log list as .CSV file.

System Log Type

All: Show all logs.

System Startup: Only show the system logs of main console is started.

System Shutdown: Only show the system logs of main console is shutdown.

User Login: Only show the system logs of user login.

User Logout: Only show the system logs of user logout.

System Setting: Only show the system logs of system settings have been modified.

Guard Setting: Only show the system logs of guard settings have been modified.

Schedule Setting: Only show the system logs of schedule settings have been modified.

Start Surveillance: Only show the system logs of surveillance has been started.

Preserved Files Delete Failed: Only show the system logs of auto delete recorded files failed.

User Login Failed: Only show the system logs of user login failed.

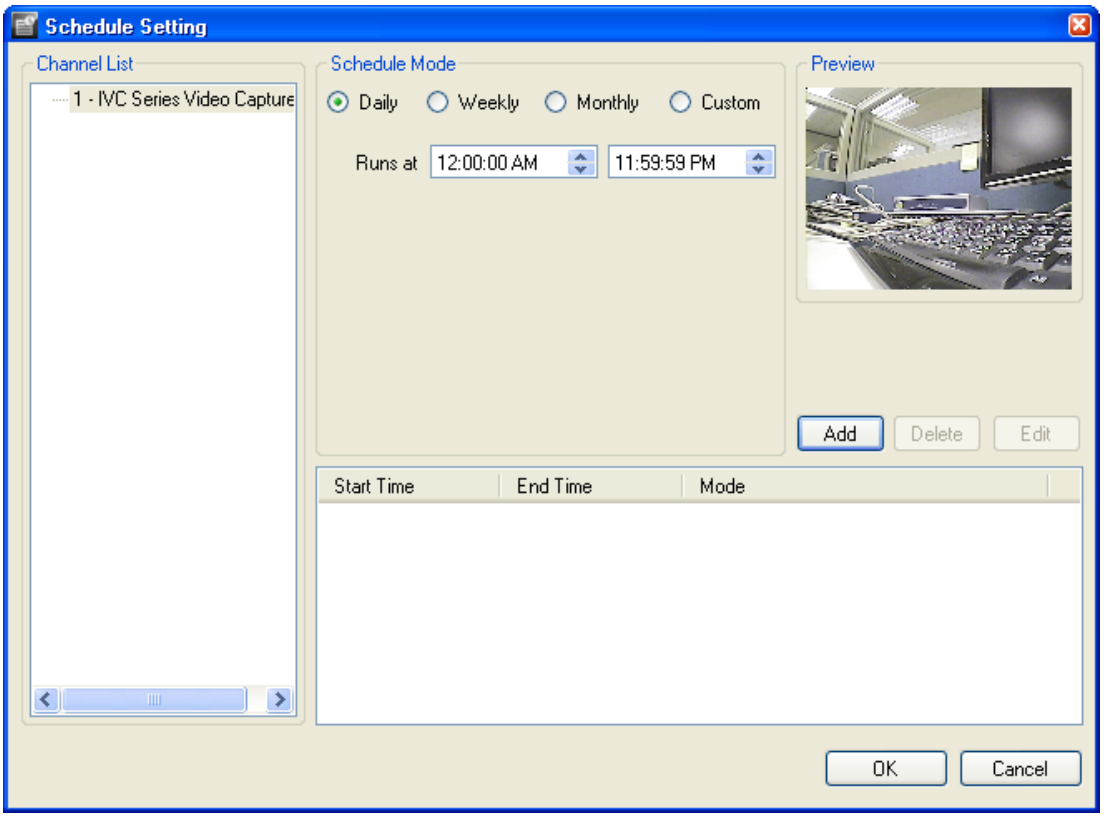
Motion Detection: Only show the event logs of motion detection.

Reserve Disk Space Met: Only show the event logs of disk space has exhausted.

Connection Lost: Only show the event logs of camera connection lost.

Digital Input: Only show the event logs of digital signal input has been triggered.

B.5 Schedule Setting



Overview: When surveillance is activated, it is basically running on the schedule mode settings (if set). You can customize the schedule for certain periods of surveillance or based on events created from the guard settings for individual channels.

Schedule Mode

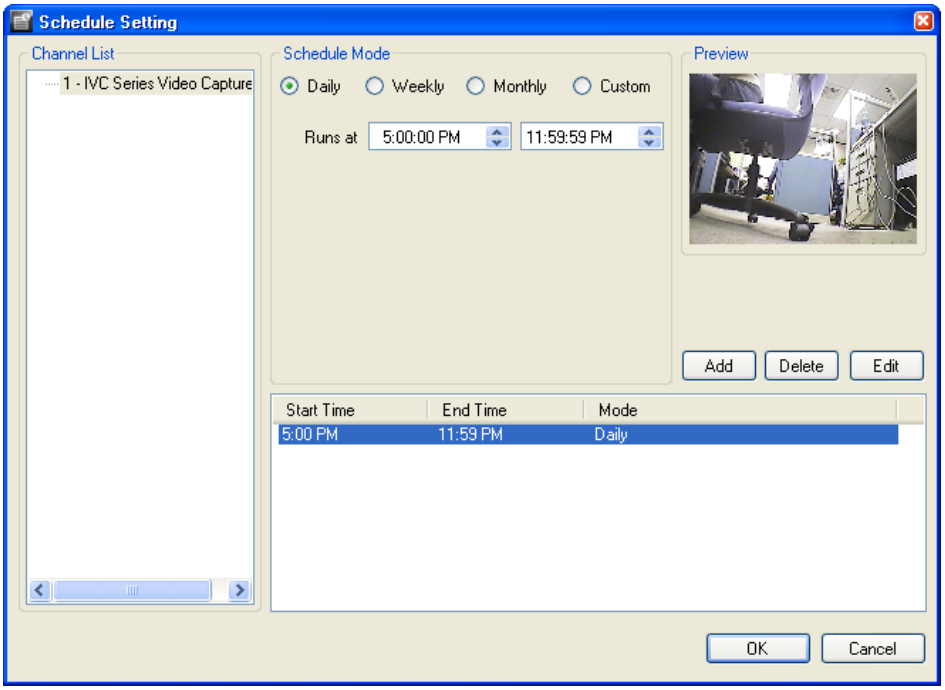
- Daily: For daily based surveillance
- Weekly: For weekly based surveillance
- Monthly: For monthly based surveillance
- Custom: For longer periods of surveillance

B.5.1 Schedule Setting Tutorial:

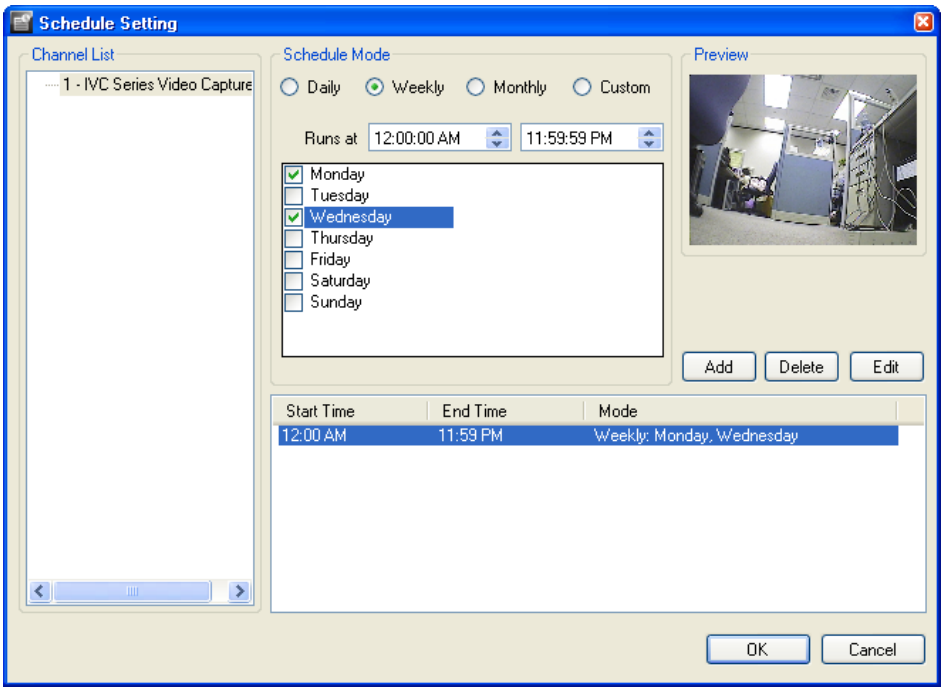
How to Set a Basic Schedule

First select your preferred schedule mode from the “Schedule Mode”

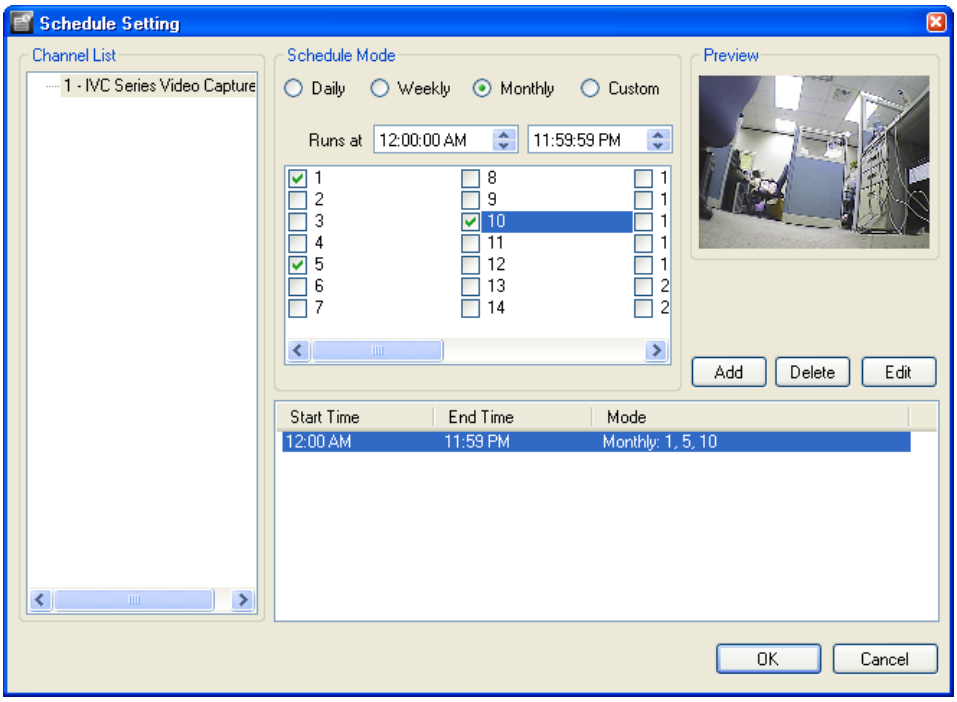
• **Daily:** For daily based surveillance. Select start/stop time, for example, 5 PM and 12 PM.



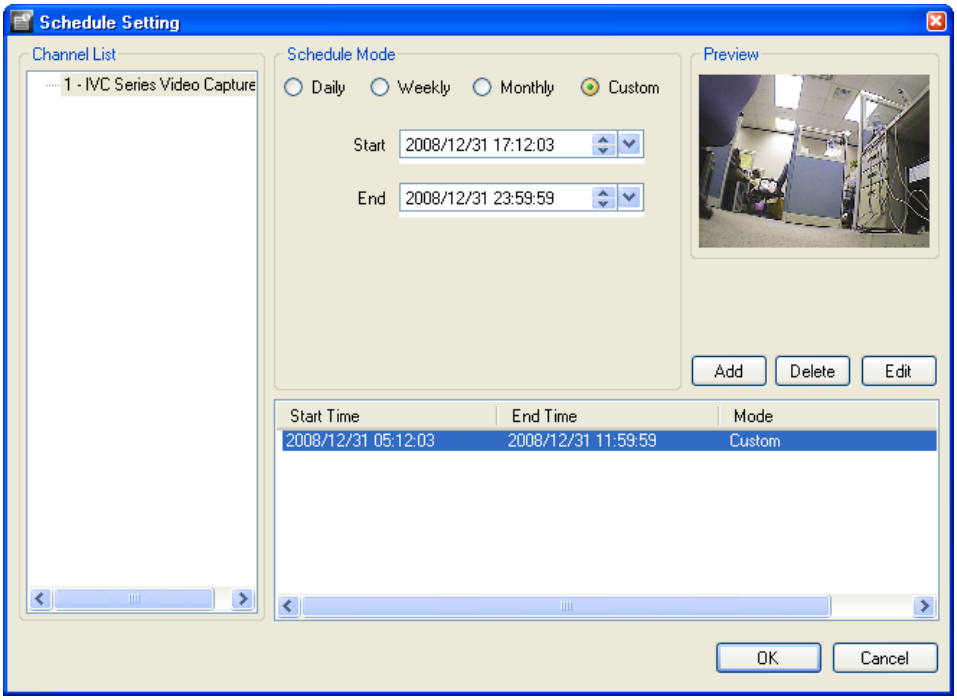
• **Weekly:** For weekly based surveillance. Select both the time and day(s) of the week.



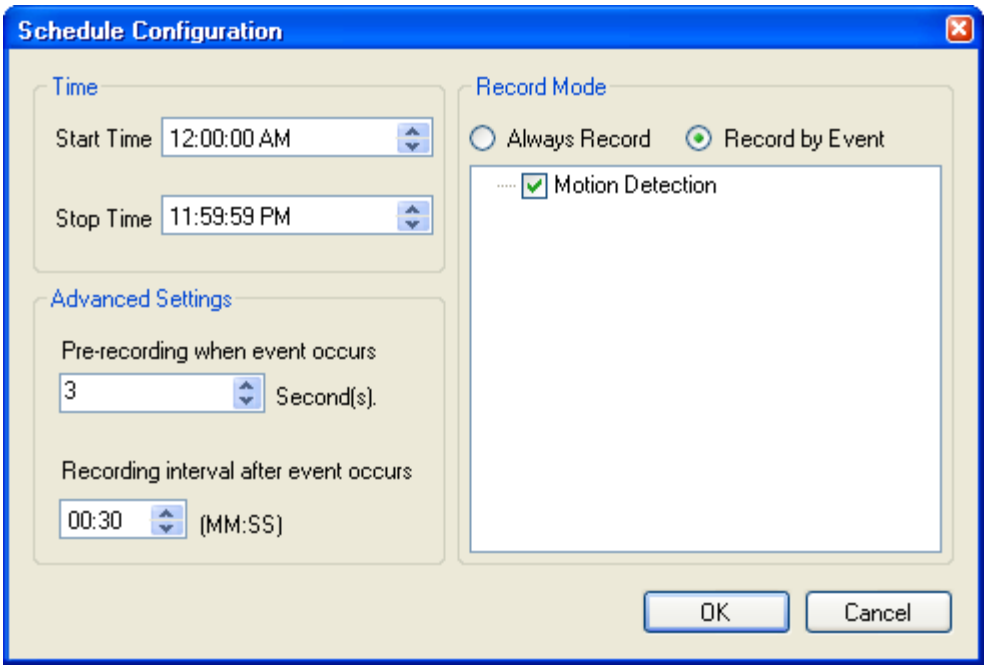
• **Monthly:** For monthly based surveillance. , Select both the time and the day(s) of the month.



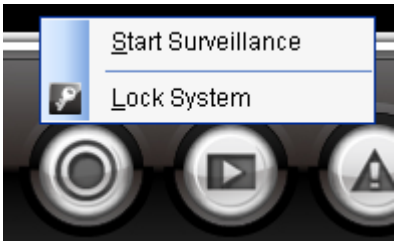
• **Custom:** For certain periods of surveillance. Select both the time and start/stop date.



Next click “Add”. You will be prompted to set a time frame for the day. You may choose the record mode to be set to “Recorded by Event” if you have set an event in Guard settings. Advanced Settings is only available when “Recorded by Event” is selected. Click “OK” once you have finish setting your preferences.



You will now have an added listing of time queue that you have created. You will need to start surveillance on the main console to activate the scheduling record.



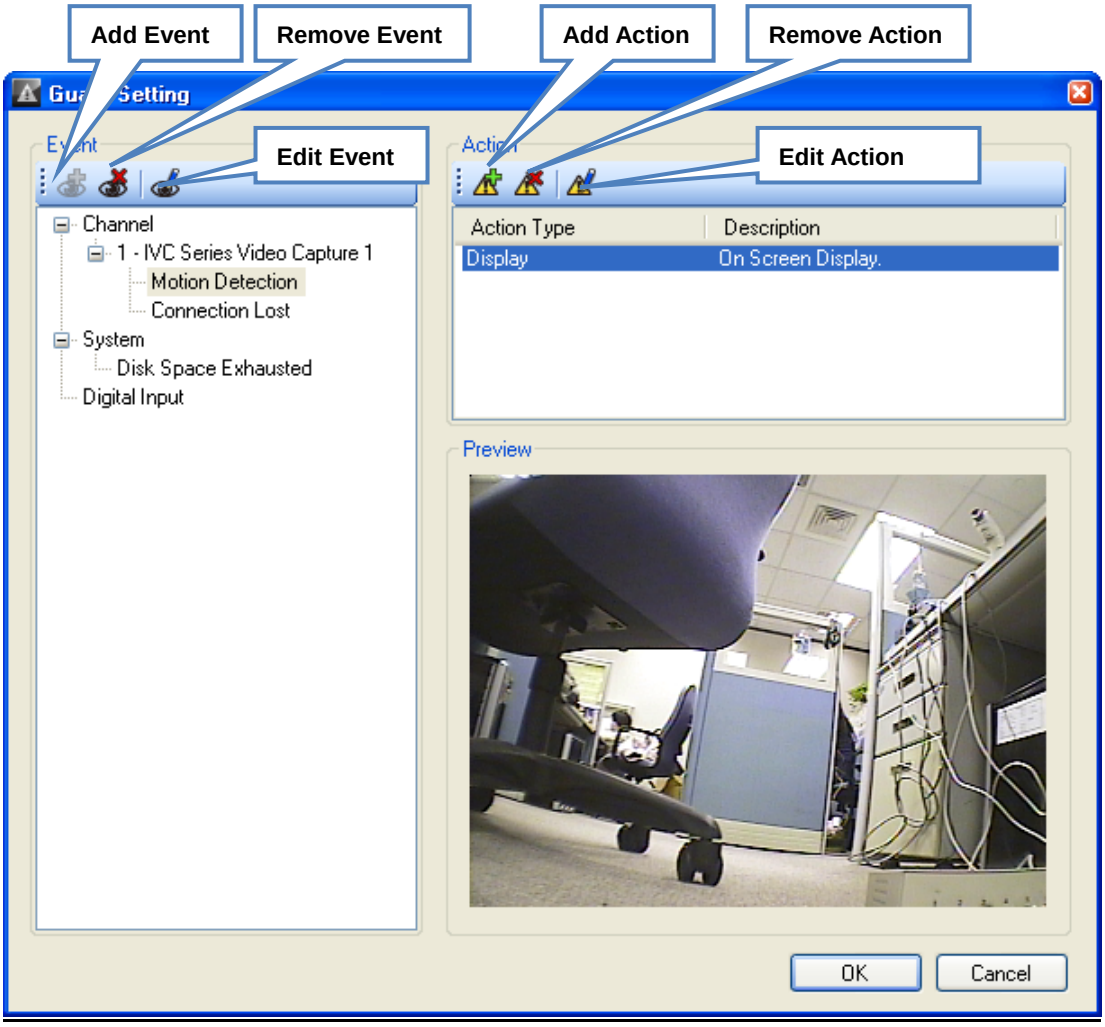
If the surveillance has been started, the status will be shown “Surveillance On” and there are symbols of light will be shown on channel.

Yellow Light: This is to indicate that the Guard Setting has been activated.

Red Light: This symbol is the scheduling record has been started.

IVC Series Video Capture 1
1
2
3
4
5
6
7
8
9
C
0
12/31/2008 5:22:50 PM
Login by administrator
Surveillance On
Page 1

B.6 Guard Setting



Overview: The Guard settings are to setup events and actions. For example, if you wish to have a certain channel to take action (such as sound indication) when an event occurs (such as motion detected), you would set it up through here.

Add Event

This adds an event to individual channel

- **Motion Detection:** This option is available only for individual channel. This will set the channel to trigger an event when motion is detected by this particular channel.
- **Connection Lost:** This option is available only for individual channel. This will be triggered when the camera connection lost.

- **Disk Space Exhausting:** This option is a default setting in “System”. This will trigger an event when the “Reserve Disk Space” is met.
- **Digital Input:** This option is available only for GPIO input. This will trigger an event when GPIO interface got a digital signal input.

Remove Event

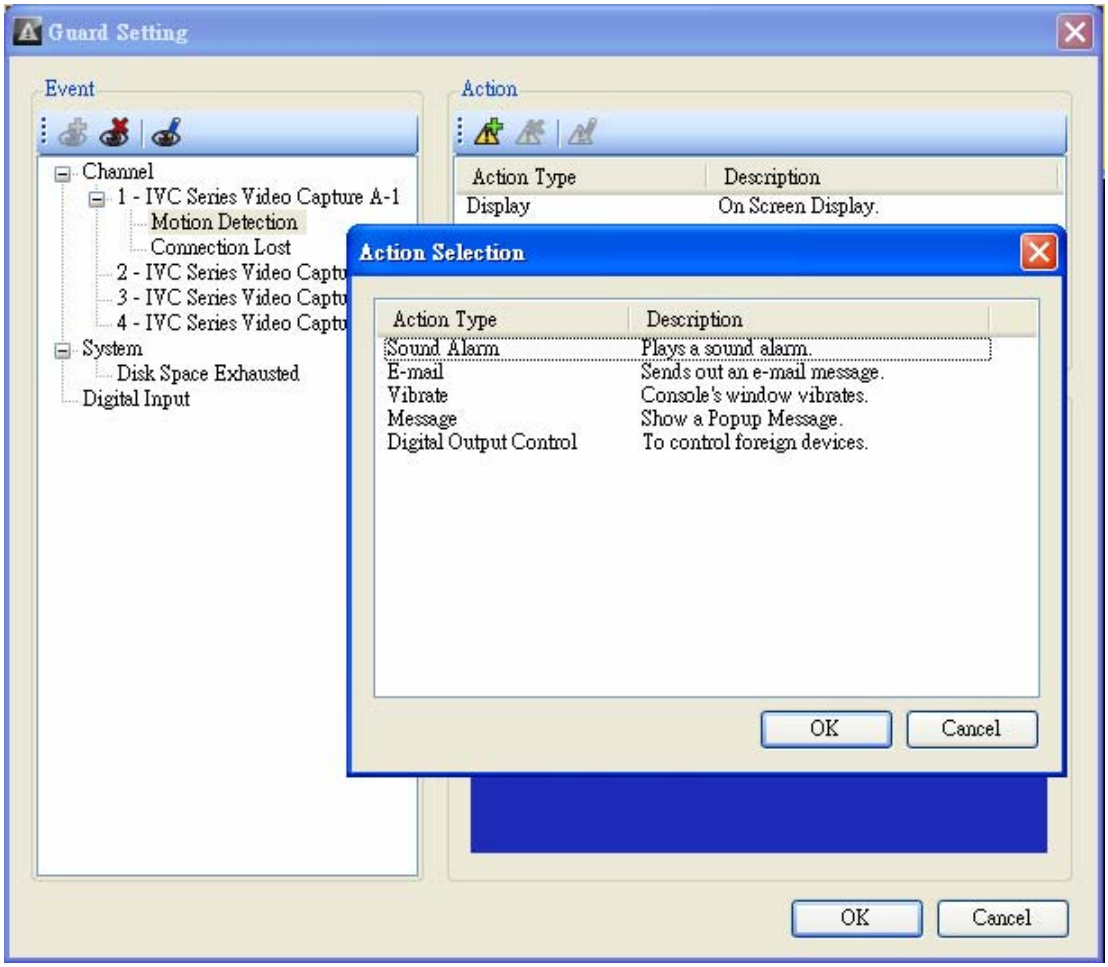
This removes a selected event from individual channels.

Edit Event

This edits a selected event from individual channels.

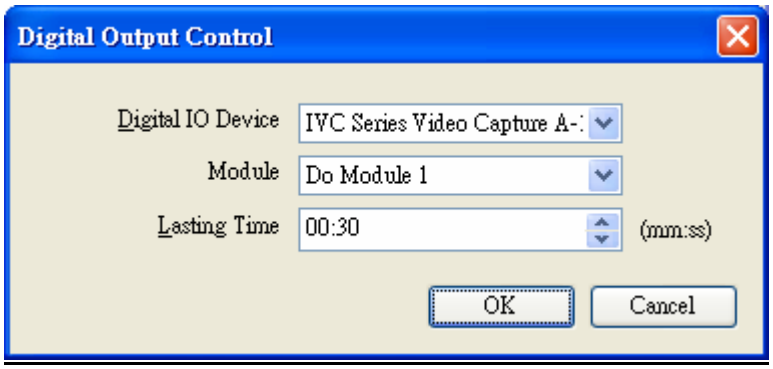
Add Action

This adds an action into the selected event.



- **Display:** Displays text when the event is triggered
- **Sound Alarm:** Plays a sound when the event is triggered
- **E-mail:** Sends out email, based on the E-mail settings when the event is triggered

- **Vibrate: Console's** Window vibrates when the event is triggered
- **Message:** Displays a message box when the event is triggered
- **Digital Output Control:** Send a digital signal to GPIO interface to control foreign devices when triggered. Firstly, you have to setup the digital output control for your device and select a proper Module that has been created in Digital I/O section of System Setting. Then setup the lasting time for the action(s) taken.



Remove Action

This removes a selected action from the selected event.

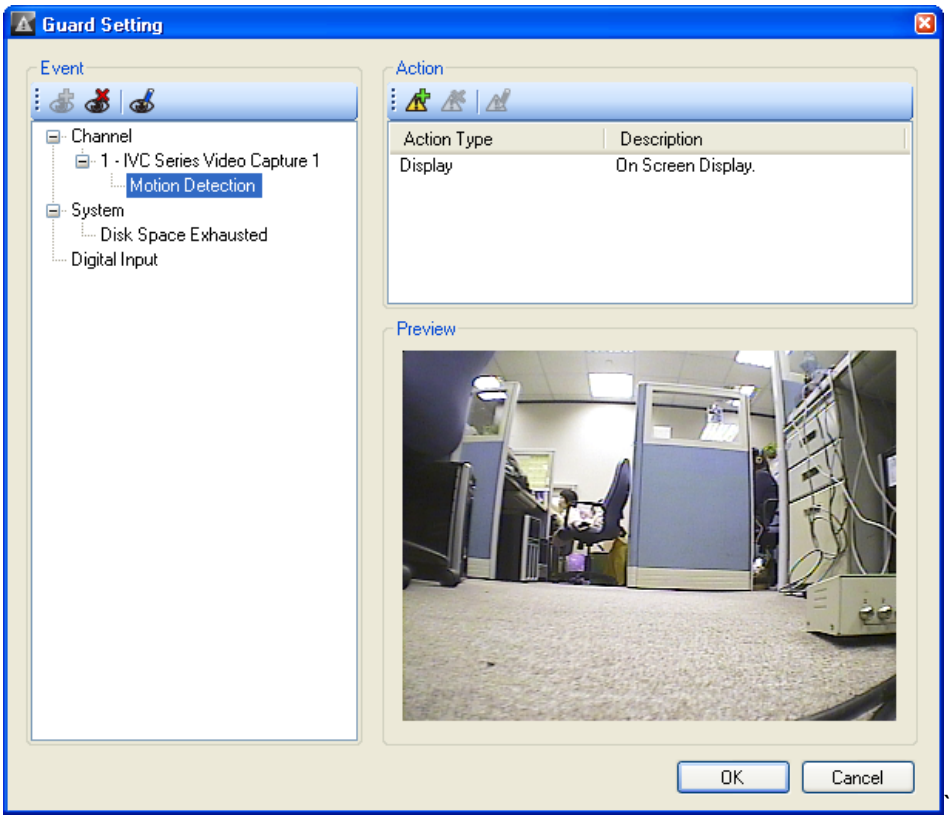
Edit Action

This edits a selected action from the selected event.

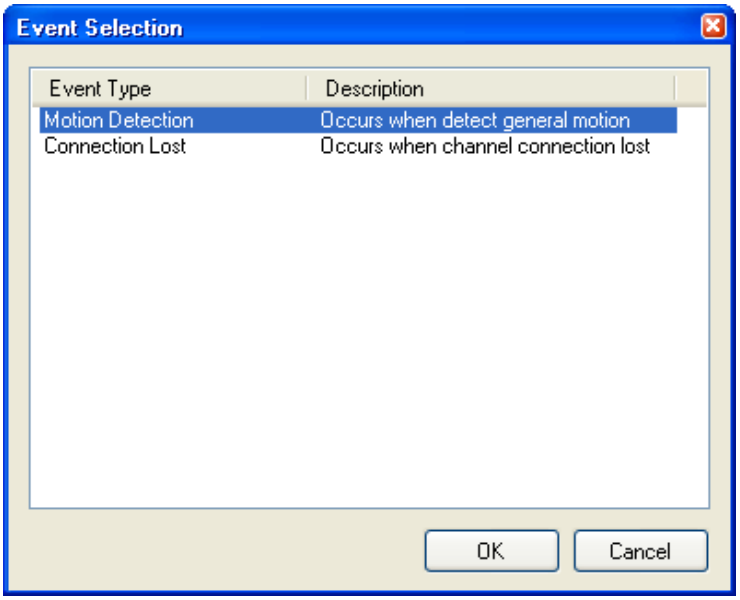
B.6.1 Guard Setting Tutorial:

How to create Motion Detection events for the Camera

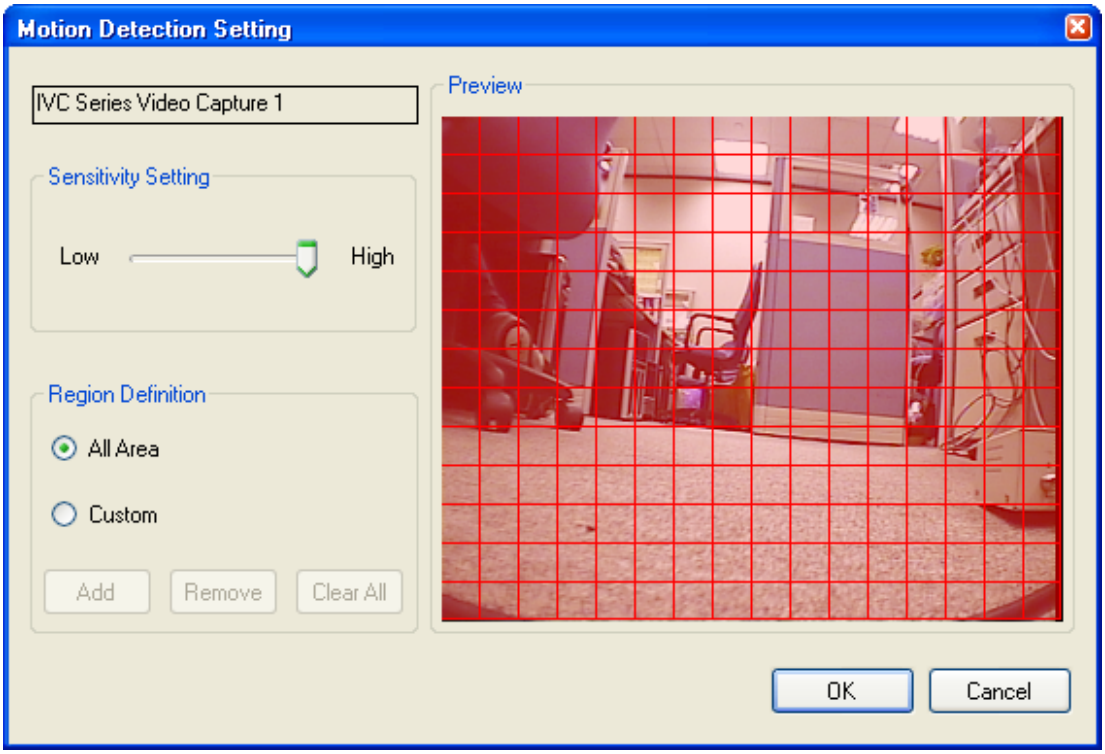
While in Guard Setting, select the camera that you want to add motion detection and click on "Add Event"



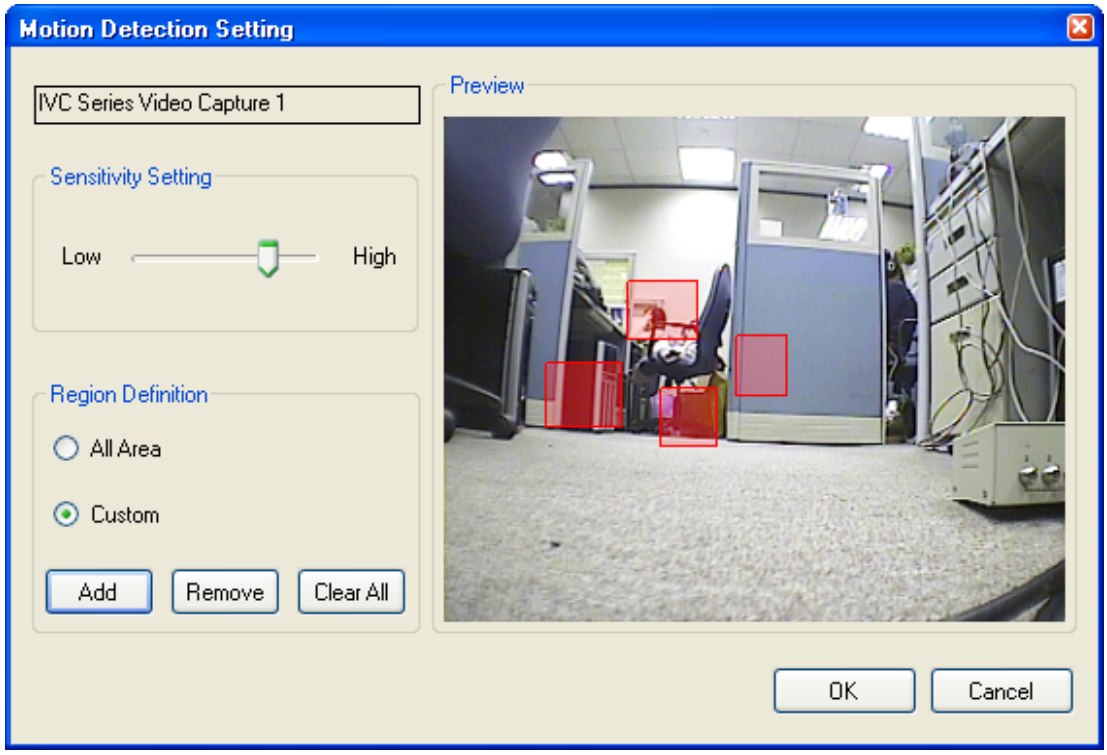
An "Event Selection" window should pop up, select "Motion Detection" and click "OK"



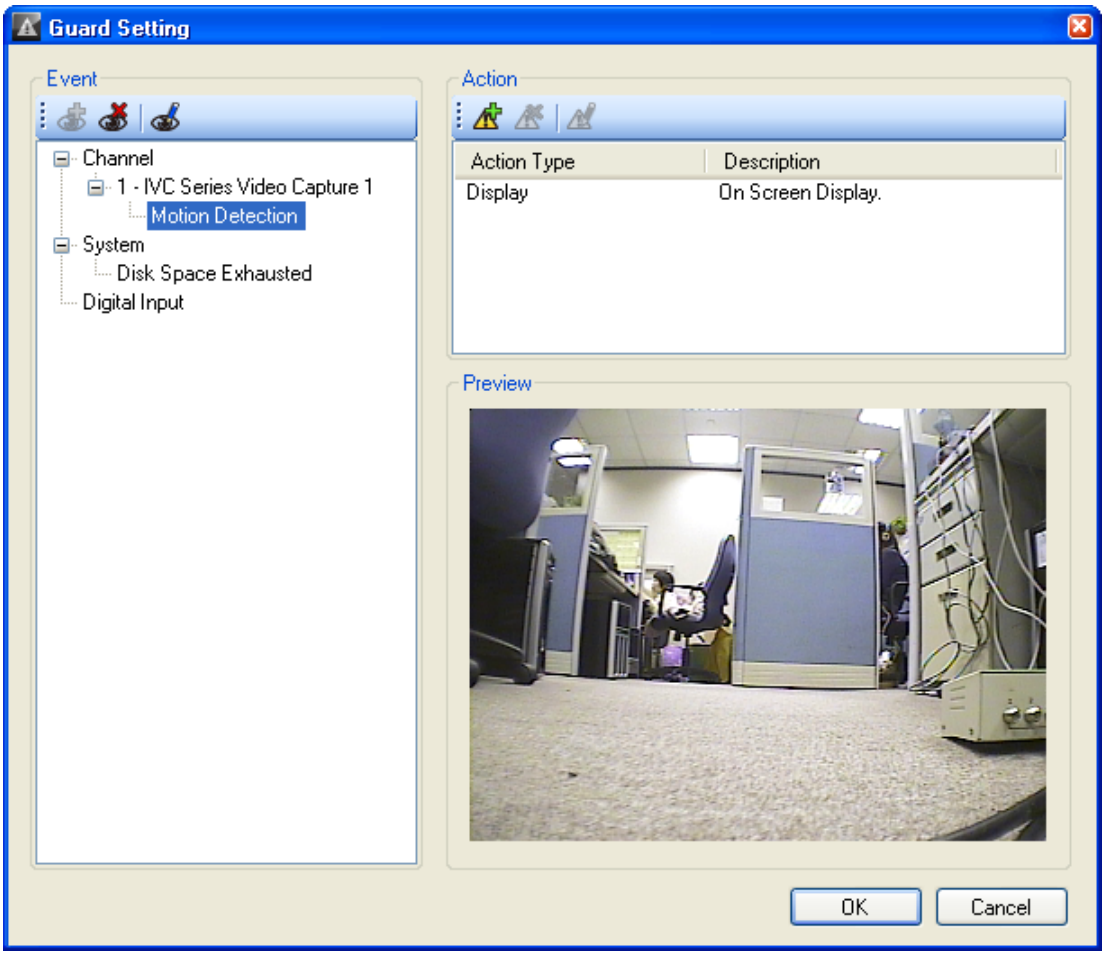
Drag the slider on the Sensitivity setting to choose how sensitive for each motion area to detect. If you move the slider to “High”, this will set the sensitivity higher. If you move the slider to the “Low”, this will set the sensitivity lower. Choose “All Area” to detect for everything that is on the camera screen.



Choose “Custom” to set your own area to detect for motion, for example, you only want to detect motion from a portal. To use “Custom” for Region Definition, you’ll need to define the areas that you want to detect. First you would click on “Add”. Then, in the preview panel, click and hold to drag an area that you wish to detect. Click on “Remove” and click on the area you created to remove it. Click on “Clear All” to remove all areas created in the preview panel. Click “OK” once you’ve completed.



Click on the “Motion Detection” that you have just created to see “Action”. By default, it should already have “Display” action added. Click “OK” to complete.



You should now be back in main console. Try moving an object in front of the motion detected configured camera. Click on “Service” and choose “Start Surveillance”

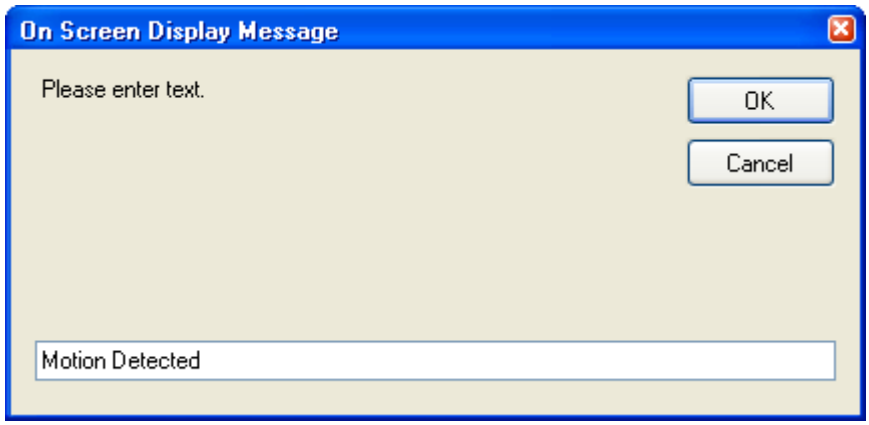
IVC Series Video Capture 1
12/31/2008 6:54:22 PM
Start surveillance
Lock system
Surveillance On

Try moving an object in front of the motion configured channel. You should be able to see a message displaying “Motion Detected”

Tips

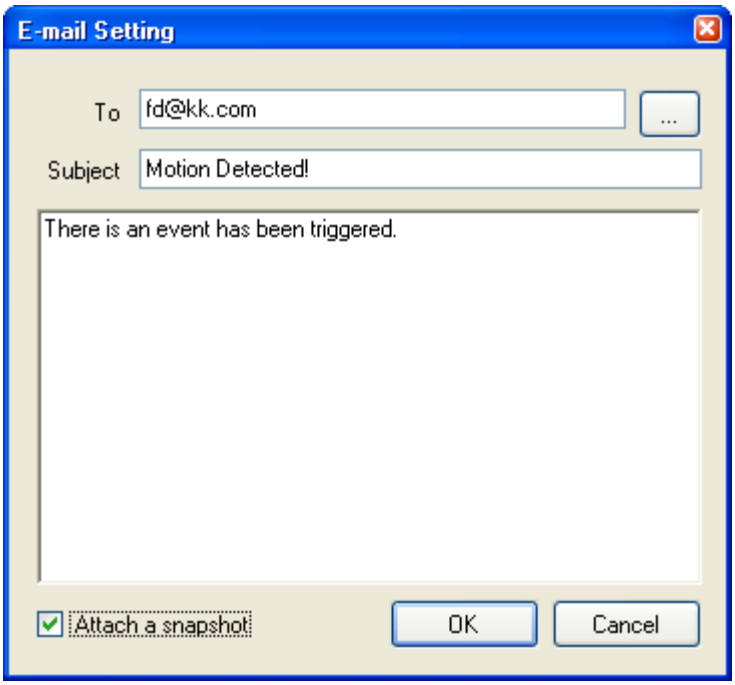
• You can add more customized actions into the event for better notification:

- Display: You can input your own message for display by editing the default

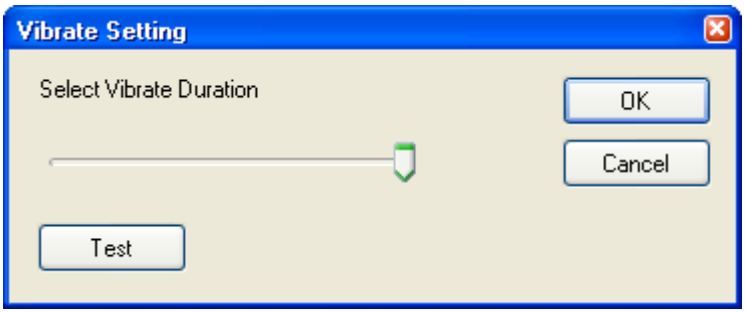


- Sound Alarm: Alerts you through your computer's speaker when the event gets triggered

- E-mail: Alerts you through e-mail messaging with custom messaging (requires configuration). If checked the box of "Attach a snapshot", the mail will attach a snapshot of motion detection.



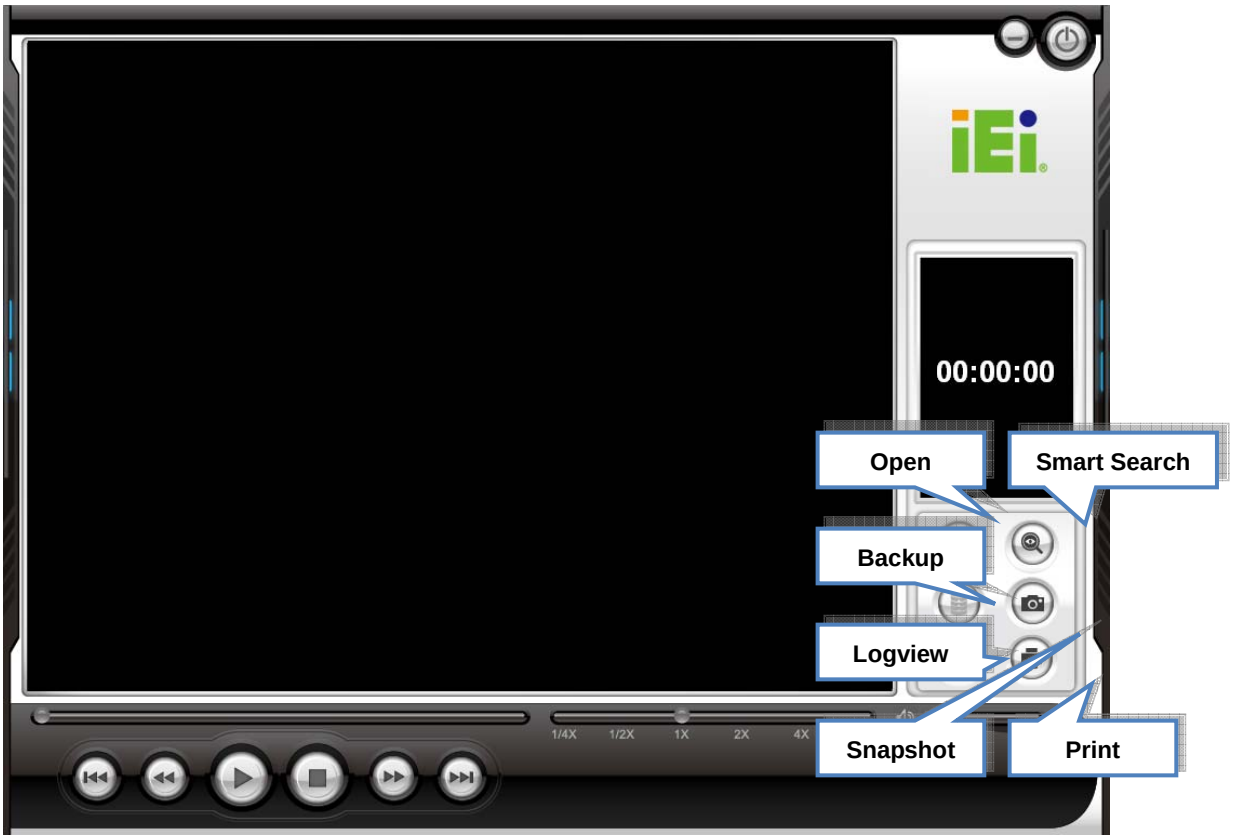
- Vibrate: Vibrates the whole console window. Move the slider to the right for longer vibration. Move the slider to the left for shorter vibration.



B.7 Playback

To open the recorded video, view the videos, search the events from the current opened video files, backup recorded files, view the logs, take snapshot, and print channel images. The major features of Playback as below.

- Views up to 16 channels simultaneously
- Playback speed controls up to 6x
- Status information indicator
- Enhanced search mode
- Capture image frames
- Print channel images
- Easy access to back up videos
- Browser and export the event and system logs
- Voice switch and volume controls
- Support Hot Key control



Open

Open existing video records that the main console has recorded

Search

Search the opened video records for specific action(s)

Backup

Set scheduled backup operations for safe keeping

Snapshot

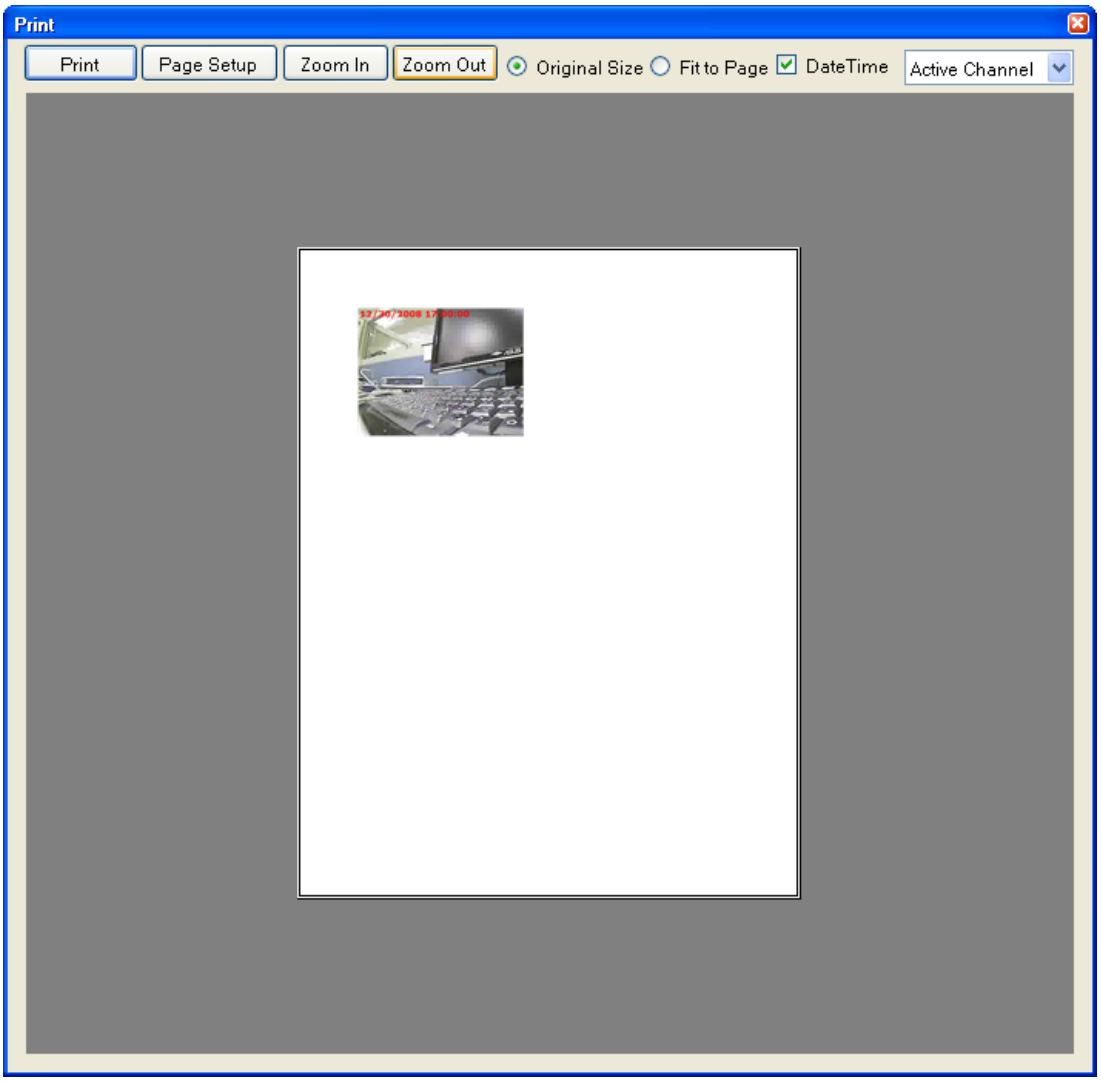
Take a snapshot of the current channel

Logview

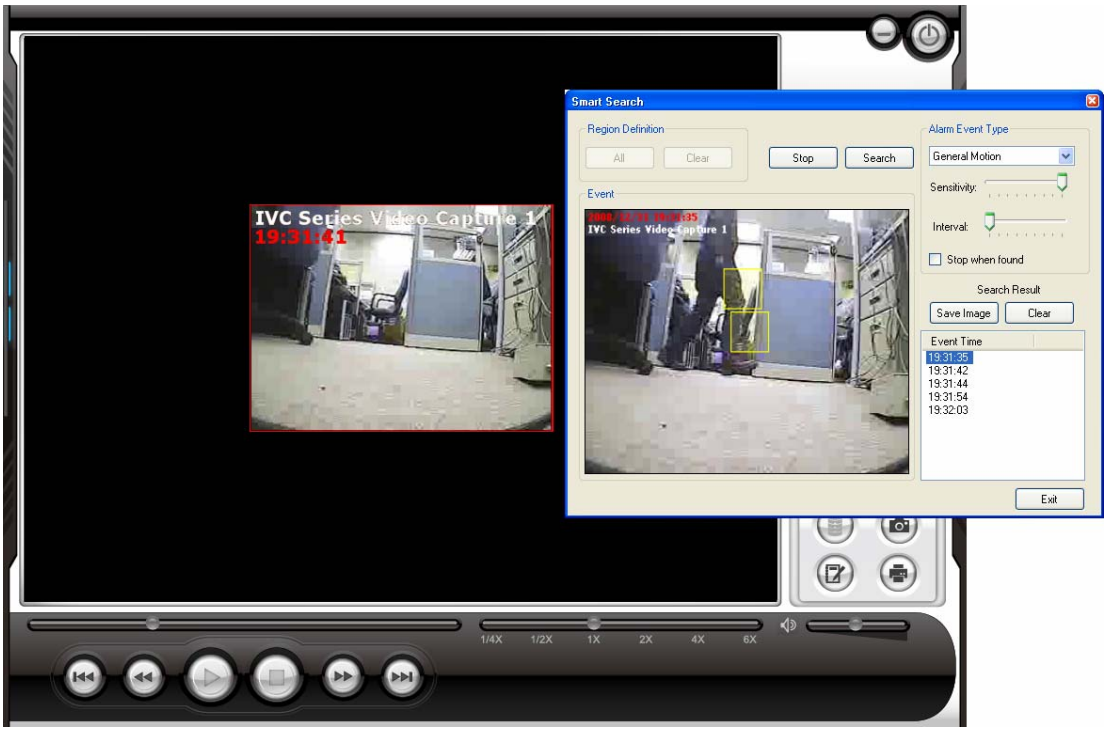
View the logs of events and the system itself

Print

Print the current active channel and all channels image.



B.8 Smart Search



Overview: Smart Search helps user to detect for motions in recorded videos automatically. To highlight specific motion detected areas by holding down the left mouse button and dragging in the Playback window area will speed up the investigation time.

All

Search events for all areas on the recorded video.

Clear

Clear any user created motion detected areas.

Stop

Stop the current search.

Search

Start the search.

Sensitivity

Drag the setting to the right for high sensitivity; drag the setting to the left for lower sensitivity

Interval

Drag the setting to the right for more frequent snapshot intervals; drag the setting to the left for less frequent snapshot intervals

Save Image of Search Result

Save the image to your file directory.

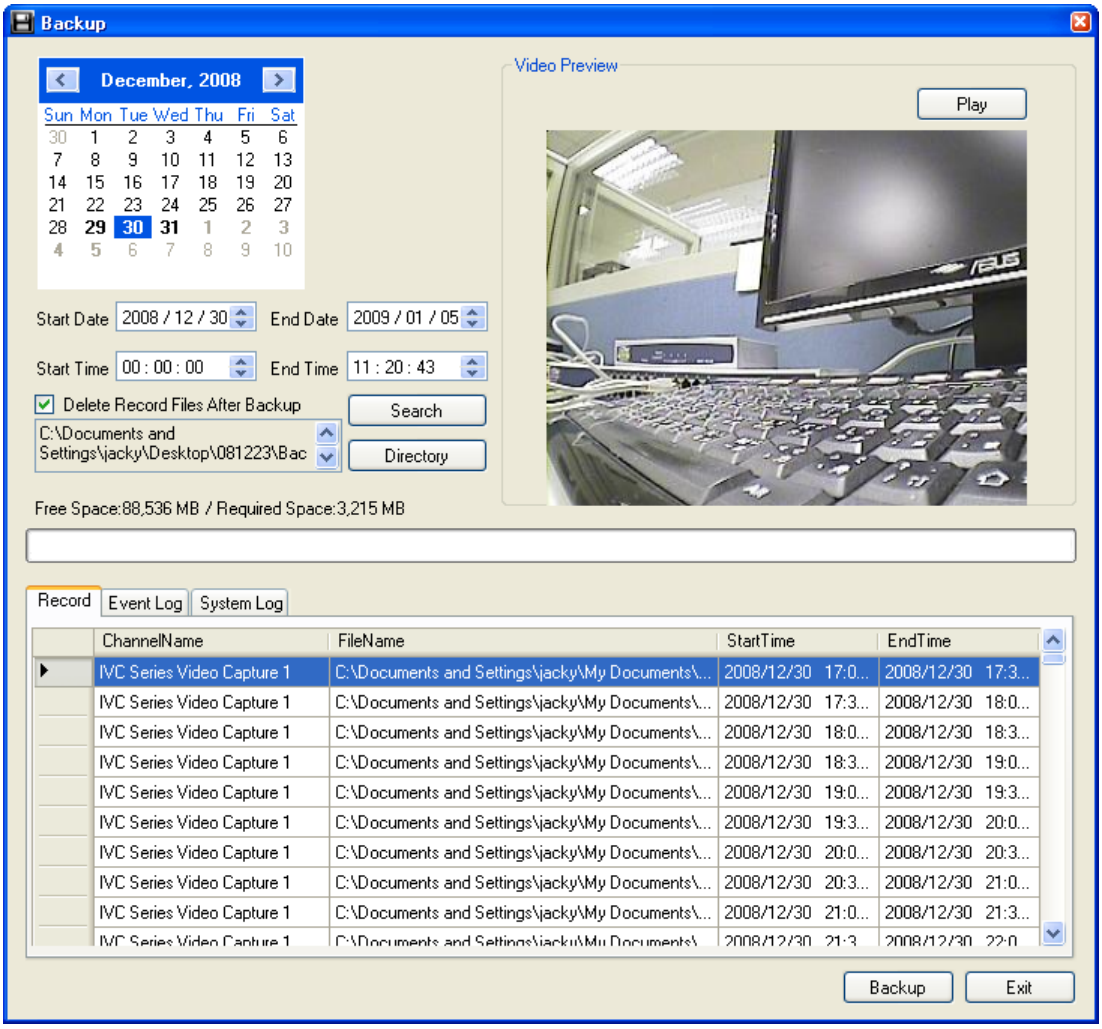
Clear of Search Result

Clear all the results in the search.

B.9 Backup

The major features of Backup as below.

- Backup recorded video files, event logs and system logs.
- Set date and time intervals
- Video Preview
- Delete recorded files after backup
- Bundle playback program to view the backup files in anywhere



Delete Record Files After Backup

Once backup has completed the current files on the specified directory will be deleted.

Search

Inquiry the search based on the starting date and time.

Directory

Where the backup files you would like to store under.

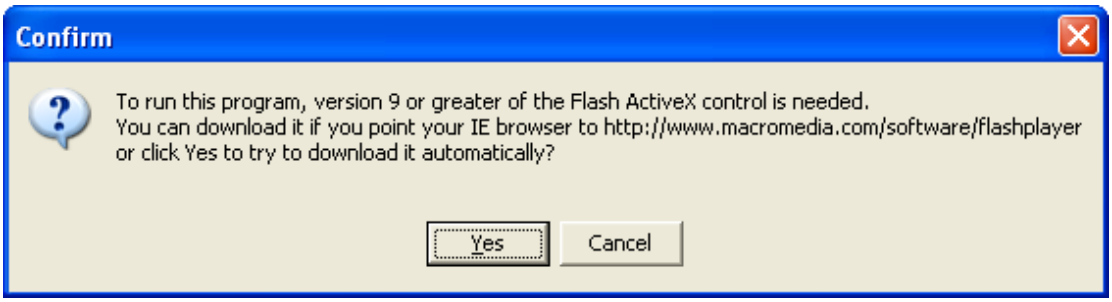
Play

Play the current selected video for previewing purposes.

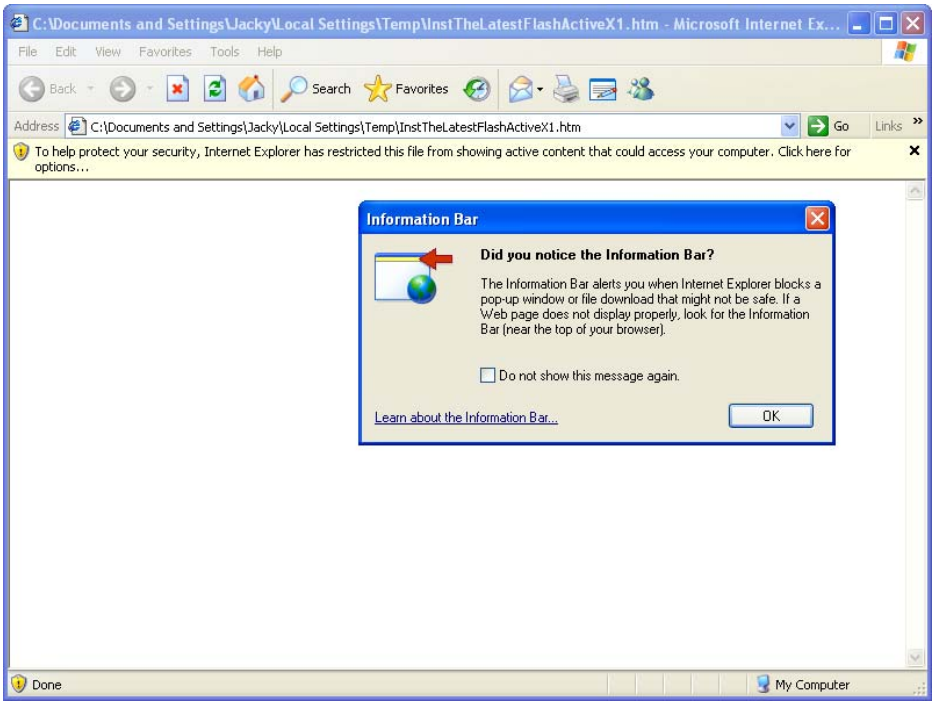
B.10 Miscellaneous

B.10.1 Trouble shooting - Autorun.exe can't auto launch

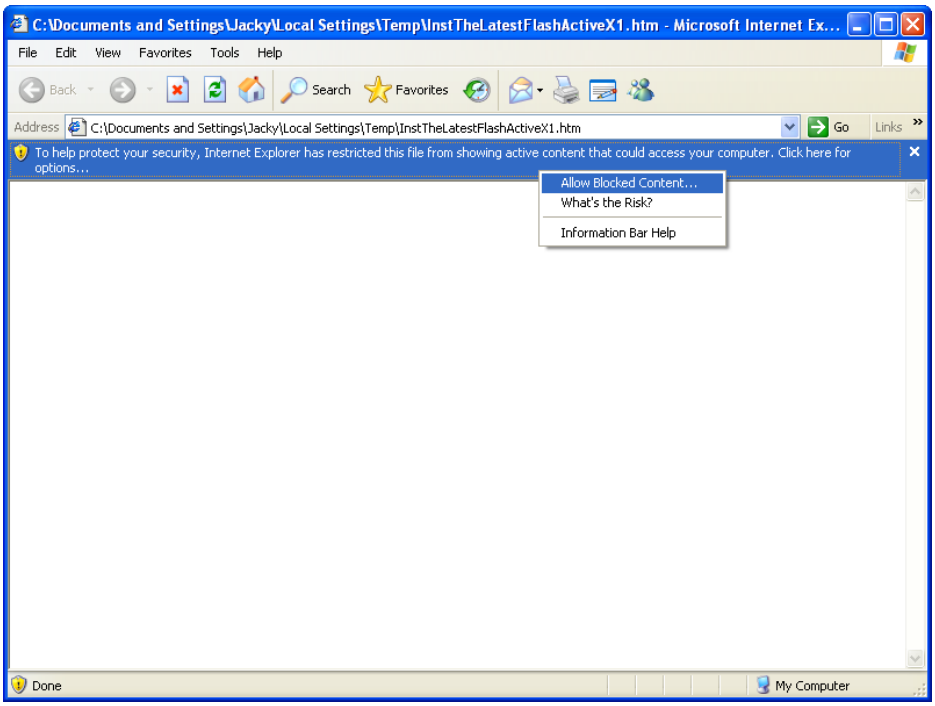
Normally the computer will play provided CD automatically. If not, please open "My Computer" from your start menu or desktop. Right click on your optical drive and choose either "AutoPlay". Or if the computer never have any Flash Player ActiveX (version 9 or above) installed, you will have to install it first. Please click "Yes" when following message pop-up to download it.


Confirm
To run this program, version 9 or greater of the Flash ActiveX control is needed.
You can download it if you point your IE browser to http://www.macromedia.com/software/flashplayer
or click Yes to try to download it automatically?
Yes
Cancel

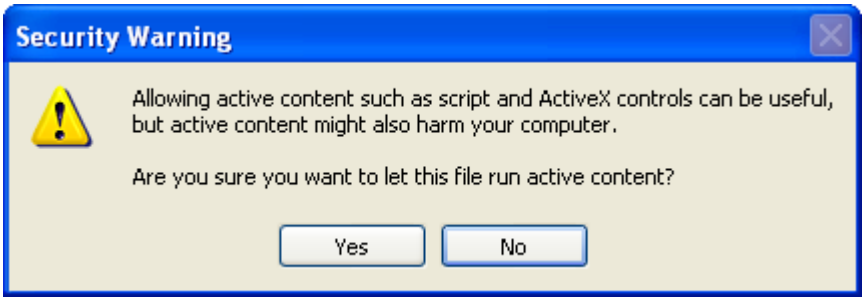
Click "OK" button to close the Information Bar.


C:\Documents and Settings\Jacky\Local Settings\Temp\InstTheLatestFlashActiveX1.htm - Microsoft Internet Ex...
File Edit View Favorites Tools Help
Back Search Favorites
Address C:\Documents and Settings\Jacky\Local Settings\Temp\InstTheLatestFlashActiveX1.htm
Go Links
To help protect your security, Internet Explorer has restricted this file from showing active content that could access your computer. Click here for options...
Information Bar
Did you notice the Information Bar?
The Information Bar alerts you when Internet Explorer blocks a pop-up window or file download that might not be safe. If a Web page does not display properly, look for the Information Bar (near the top of your browser).
Do not show this message again.
Learn about the Information Bar...
OK
Done
My Computer

Select “Allow Blocked Content…” to start downloading the file.


C:\Documents and Settings\Jacky\Local Settings\Temp\InstTheLatestFlashActiveX1.htm - Microsoft Internet Ex...
File Edit View Favorites Tools Help
Back Search Favorites
Address C:\Documents and Settings\Jacky\Local Settings\Temp\InstTheLatestFlashActiveX1.htm
Go Links
To help protect your security, Internet Explorer has restricted this file from showing active content that could access your computer. Click here for options...
Allow Blocked Content...
What's the Risk?
Information Bar Help
Done
My Computer

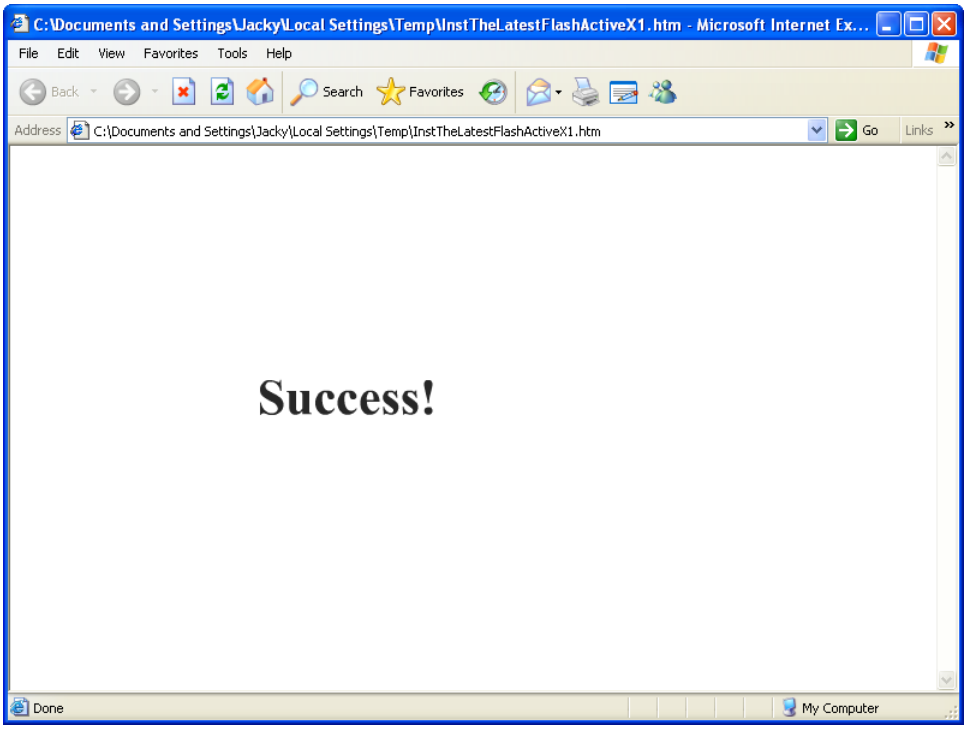
Click “Yes” button to continue.


Security Warning
Allowing active content such as script and ActiveX controls can be useful, but active content might also harm your computer.
Are you sure you want to let this file run active content?
Yes
No

Click “Install” to start installing Adobe Flash Player Installer.

Internet Explorer - Security Warning
Do you want to install this software?
Name: Adobe Flash Player Installer
Publisher: Adobe Systems Incorporated
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

You may now close the internet browser when “Success!” message is shown.



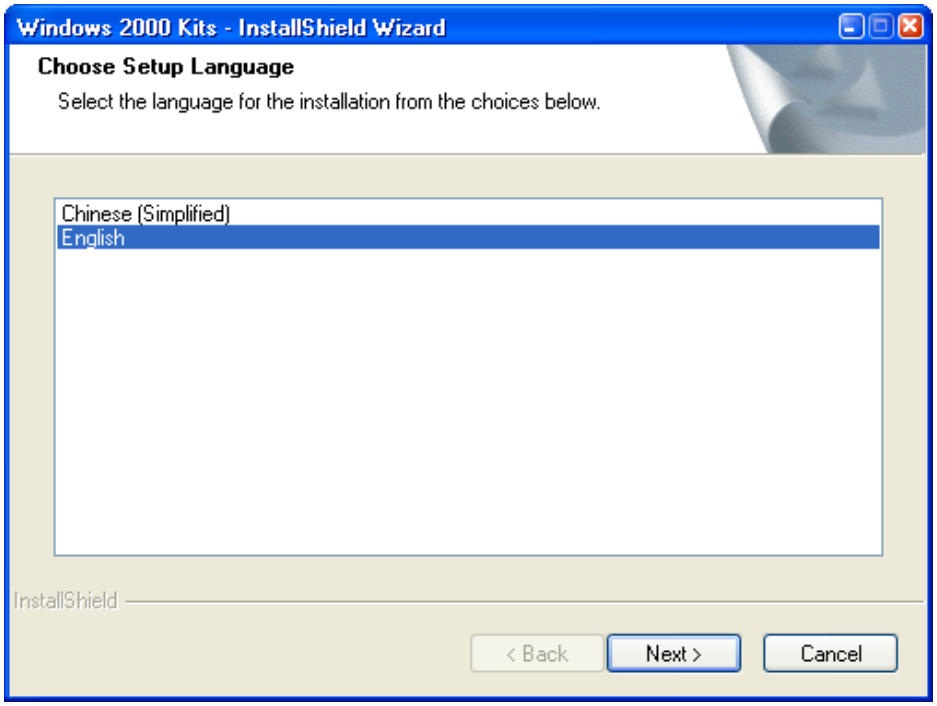
At this moment, Autorun.exe will auto launch now, but it only shows the background of Autorun.exe. Please close the background of Autorun.exe by the left mouse key and re-start the Autorun.exe program. (Suggest to close…)

To re-start the Autorun.exe, you may take out the CD from your optical deriver and place it back for automatically launch or repeat the other steps manually as mentioned previously.

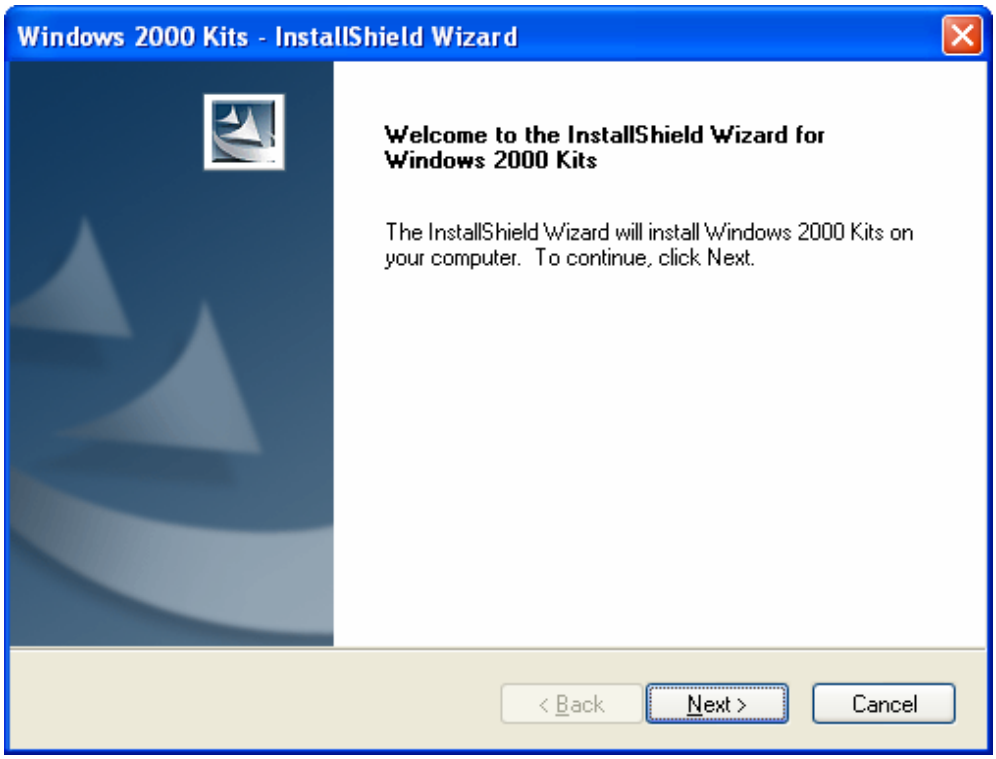
B.10.2 Installation software on Windows 2000

To install Argus on Windows 2000 OS, please install “Windows 2000 Kits” first. To install the kits please select “Install Windows 2000 Kits” on start up menu to install the programs.

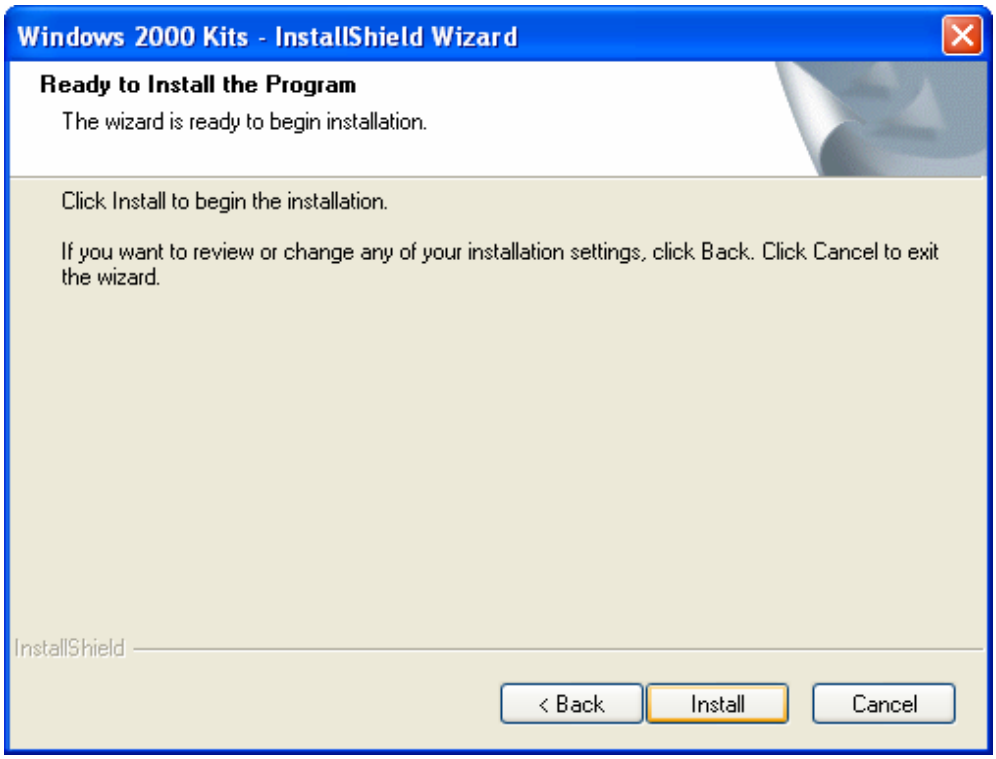
Select the language once the “Choose Setup Language” window pop-up, and then click “Next” to continue the installation.



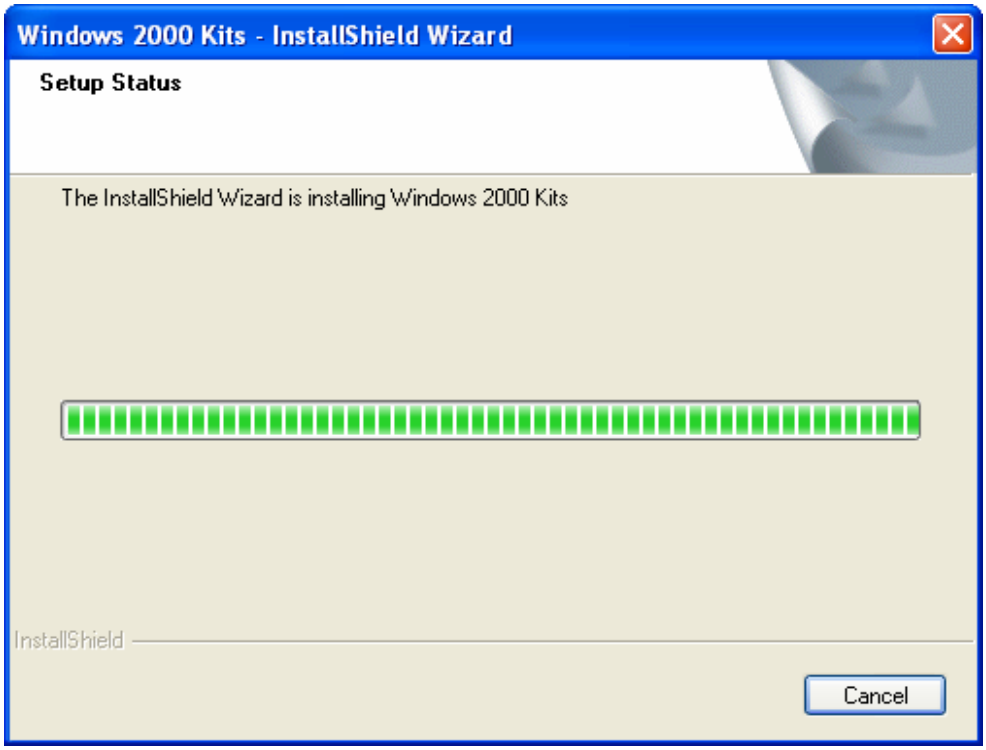
The “Welcome” window will then pop-up, click on “Next” to continue.


Windows 2000 Kits - InstallShield Wizard
Welcome to the InstallShield Wizard for Windows 2000 Kits
The InstallShield Wizard will install Windows 2000 Kits on your computer. To continue, click Next.
< Back
Next >
Cancel

You are now ready to install the program. Click on “Install” to begin the installation process.

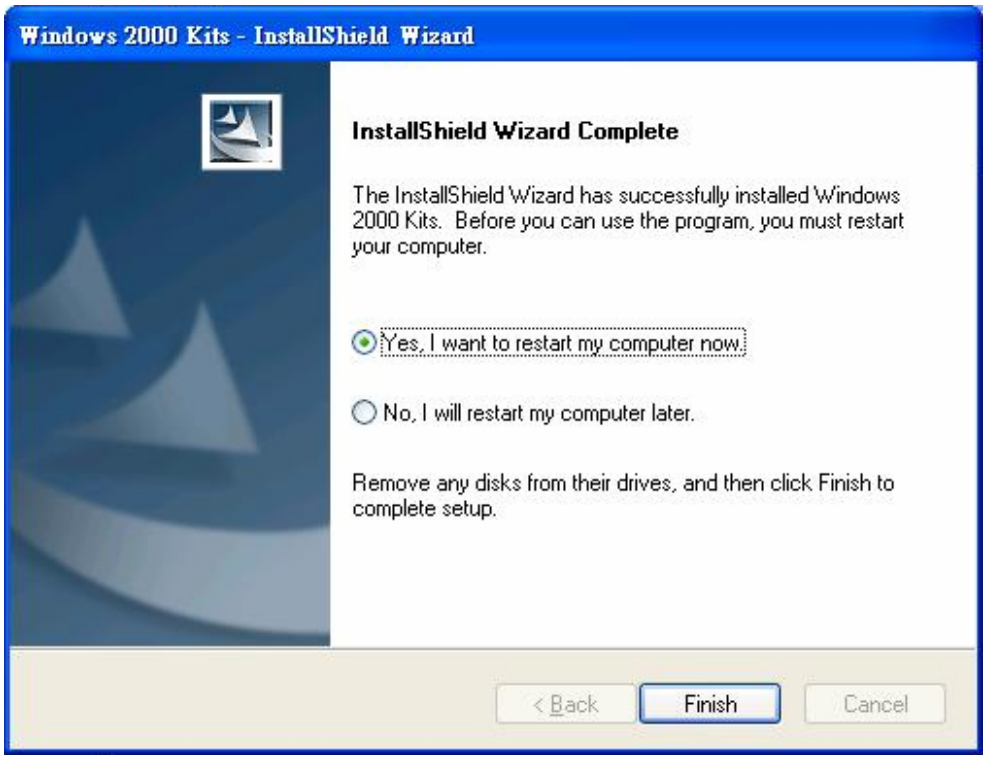

Windows 2000 Kits - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

You will now see the installation progress. Please wait a few minutes to complete the installation.



Once the installation completes, the InstallShield Wizard will ask for restarting your computer.

Check “Yes” and click “Finish” to re-start computer now. If you select “No”, you have to restart your computer later otherwise installing Argus will get some troubles.


Windows 2000 Kits - InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed Windows 2000 Kits. Before you can use the program, you must restart your computer.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
< Back
Finish
Cancel

B.10.3 Software Hot-key list

B.10.3.1 Main Console

Hot Key	Function
Ctrl + 2	Playback
1	Channel number input 1
2	Channel number input 2
3	Channel number input 3
4	Channel number input 4
5	Channel number input 5
6	Channel number input 6
7	Channel number input 7
8	Channel number input 8
9	Channel number input 9

0	Channel number input 0
Backspace	Clear Channel number input
Enter	Enter the Channel number
Up (↑)	Camera Tilt Up
Down (↓)	Camera Tilt Down
Left (←)	Camera Pan Left
Right (→)	Camera Pan Right
＋	Camera Zoom in
－	Camera Zoon out
Page UP	Previous Page
Page Down	Next Page
Home	Go to the first Page
End	Go to the last Page
Ctrl + G	Start Surveillance/Stop Surveillance
Ctrl + S	System Setting
Ctrl + L	Logview
Ctrl + F	Full Screen Display
ESC	Normal Screen Display
Tab	Change Display Pattern

B.10.3.2 Playback

Hot Key	Function
Ctrl + 1	Main Console
Space	Play or Pause video
Ctrl + Enter	Stop video
Up (↑)	Speed Up
Down (↓)	Speed Down
Left (←)	Step Backward
Right (→)	Step Forward
Ctrl + O	Open Records
Ctrl + M	Smart Search

Ctrl + P	Print
Ctrl + L	Logview
Ctrl+ I	Snapshot

Appendix

C

Hazardous Materials Disclosure

C.1 Hazardous Material Disclosure Table for IPB Products Certified as RoHS Compliant Under 2002/95/EC Without Mercury

The details provided in this appendix are to ensure that the product is compliant with the Peoples Republic of China (China) RoHS standards. The table below acknowledges the presences of small quantities of certain materials in the product, and is applicable to China RoHS only.

A label will be placed on each product to indicate the estimated “Environmentally Friendly Use Period” (EFUP). This is an estimate of the number of years that these substances would “not leak out or undergo abrupt change.” This product may contain replaceable sub-assemblies/components which have a shorter EFUP such as batteries and lamps. These components will be separately marked.

Please refer to the table on the next page.

Part Name	Toxic or Hazardous Substances and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (CR(VI))	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
Housing	X	O	O	O	O	X
Display	X	O	O	O	O	X
Printed Circuit Board	X	O	O	O	O	X
Metal Fasteners	X	O	O	O	O	O
Cable Assembly	X	O	O	O	O	X
Fan Assembly	X	O	O	O	O	X
Power Supply Assemblies	X	O	O	O	O	X
Battery	O	O	O	O	O	O

O: This toxic or hazardous substance is contained in all of the homogeneous materials for the part is below the limit requirement in SJ/T11363-2006

X: This toxic or hazardous substance is contained in at least one of the homogeneous materials for this part is above the limit requirement in SJ/T11363-2006

此附件旨在确保本产品符合中国 RoHS 标准。以下表格标示此产品中某有毒物质的含量符合中国 RoHS 标准规定的限量要求。

本产品上会附有"环境友好使用期限"的标签，此期限是估算这些物质"不会有泄漏或突变"的年限。本产品可能包含有较短的环境友好使用期限的可替换元件，像是电池或灯管，这些元件将会单独标示出来。

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (CR(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
壳体	X	O	O	O	O	X
显示	X	O	O	O	O	X
印刷电路板	X	O	O	O	O	X
金属螺帽	X	O	O	O	O	O
电缆组装	X	O	O	O	O	X
风扇组装	X	O	O	O	O	X
电力供应组装	X	O	O	O	O	X
电池	O	O	O	O	O	O

O: 表示该有毒有害物质在该部件所有物质材料中的含量均在 SJ/T11363-2006 标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T11363-2006 标准规定的限量要求。